MAKE IT MATH

Family Math Activities & Resources for Early Learners

Created by families for families

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Dear Parents and Caregivers,

This toolkit was designed for families, by families. Each author on the pages that follow is a parent and/or caregiver helping students learn math and advocating for family math in their community. We have all had our struggles and our moments to celebrate. We have each used the tools we are passing along to you.

If you can have fun with math and talk to your child about it, you'll be setting them up to be willing to engage with math concepts, to try, explore, and figure out how to solve problems using math. They may not figure it out right away, but they're learning to try and keep at it. Once you start to see it in your life, it'll be easy to have fun and talk to your child about it.

You will see that the tools and tips here are designed for early learners. You will find ideas that are right for children aged three to early elementary students.

Lastly, please make this toolkit yours. Every family has their own culture, traditions, routines, and values. Take the ideas in this toolkit and adapt them to what works best for you and your family.

Sincerely,

NAFSCE Family Math Advisory Council

Table of Contents

Math at Home

Math is for Everyone

Many of the ideas in this toolkit are focused on preschool and early elementary-aged children. But math is for everyone! As children get older, there are plenty of ways to engage with your child with math. Playing games, having older siblings help younger ones with math, or working with your child on current math concepts and lessons are all ways to adapt math concepts to your child's developmental stage.

Math is Everywhere

Here, we will explore the many places you can find math concepts to share and review with your children. Once you get in the habit of finding math throughout the home, you'll see math everywhere!

Simple Math Concepts

CATEGORIES

Items can be **sorted** by color, size, shape, type, and many more **categories**.

- "Can you find three things that are red?"
- "Let's point out all the things we see shaped like a triangle."
- "In this kitchen, there are big spoons and little spoons. Can you find which are big and which are little?"

Items can also be **compared** by category.

- "Is that tree taller or shorter than the flowers?"
- "Is the car bigger or smaller than the bus?"
- "Does the ladybug have more legs or less legs than the spider?"

NUMBER CONCEPTS

Cardinality explores how many are in all. For example: When counting, the last number is the total amount. Hand gestures can also help children understand cardinality.

- "How many toys do you have on your bed in all?"

Numeral knowledge means seeing a number and understanding that it means the quantity of that number.

- Write the number "4" down. "Can you bring me this many markers?"

Magnitude helps us compare amounts.

- "There are five sandwiches on this tray and two on this tray. Which tray has more sandwiches?"

More Math Concepts

Number concepts are just one way to strengthen your child's grasp of math. The tools here will also offer ideas for Addition and Subtraction, Counting, Measurement, Shapes, Patterns, and other concepts that you'll find throughout the home and community.

Not a Math Person?

Stop right there! Remember, children can sense how adults feel about math. The key to exploring math concepts with your kids is not about knowing the right answer—it's about asking questions like "I wonder..." or "What would happen if..."

- "I wonder how many chairs are at the table..."
- "I wonder what would happen if we put one away..."

Talking about math concepts in this way teaches your children that it's fun to talk and think about math, even if they don't have the answers yet. Math is about thinking, not just knowing. This mindset will make them better math learners.

You will notice "I wonder..." questions like the ones above throughout this toolkit. Use them or create your own! We encourage you to find the answers alongside your child. You can ask questions that you and your child might not have an answer to right away. They may need some extra time—seconds, minutes, days, or weeks—to answer. The process of figuring it out is how we **Make It Math!**

In the Kitchen

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Have your child help put away the silverware	"Why do the forks go together?" "How is a bowl different from a plate?" "Which pot is the biggest?" "Which pan is the tallest?"	"Which pot can hold the most water?" Use water to experiment. "How does ½ cup relate to ⅓ cup to one full cup?" Talk about measurements.
NUMBER CONCEPTS	Practice counting items 1–5	"You have three carrots on your plate. What would happen if you ate one carrot?" "Can you set the table with this many plates?" Use your hand to show four.	Increase the numbers to include 1–10, then 1–20. Include magnitude. "If someone else comes to dinner tonight, how many plates would we need?" "Are there more forks than plates on the table? Or the same amount?"

More Concepts

- Bring your child's attention to the **patterns** on the counter-top or the table cloth. *"What do you notice about the lines?"*
- Ask your child to **count** the number of place settings and chairs. *"Do they match?"*
- Ask 'What if..." questions about the number of people eating around the table. "*What if we* **added or subtracted** *one?"*

How do you Make It Math in the kitchen?

"I wonder..."

- "I wonder how many carrots you have..."
- "What would happen if you ate two?"
- "I wonder how many plates we need..."
- "What would happen if two more people joined us for dinner?"

Additional Resources

- Dishing up the Math: Tasks at Home Can Become Math Time: Shows how emptying the dishwasher can be a math activity
- Two Parts Chocolate: Cooking activity that incorporates ratios
- Trail Mix and Munch: Trail mix recipe with math riddles to try
- Math Placemats: Math-related placemats that can get your kids talking about math at the dinner table

FROM A PARENT

"I love to bake, it's part of my culture, and baking involves a lot of measurement. Using measuring cups with my daughter, I taught a lesson on halves, quarters, and what makes a whole. If she had half a cup, she needed two to make a cup. She was able to get the concepts so well doing it hands-on. It made a world of difference. She poured it herself instead of writing it down on a piece of paper."

- TOYIN

In the Bathroom

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Find items in the tub or around the sink.	"Is the soap bigger or smaller than the washcloth?" "Is your toothbrush longer or shorter than my toothbrush?" "Look at how the sink curves. Where else do you see curves?"	"I wonder which container can hold the most water..." "Help me sort the washcloths. Which ones go together? Why?" "Who needs more soap? You, or your sister? Why?"
NUMBER CONCEPTS	Engage with the numbers 1–5.	"How many toothbrushes do you see?" "There are three squares of toilet paper."	Increase to include 1–10, then 1–20. "If I wash two towels, how many will be left on the rack?" "How many fingers are squeaky clean? How many toes? How many altogether?" "You have 30 more seconds in the bath. Let's count backwards together."

More Concepts

- Bring your child's attention to the **shapes** of different items in the bathroom. "*What shape does the sink make? How is it different from the tub?*"
- Ask your child to gather **data** about what they see and what conclusions they can make. *"Are there enough toothbrushes for everyone?"*
- Encourage your child to estimate **measurements**. "*How much water do you think we would need to fill the bathtub?*"

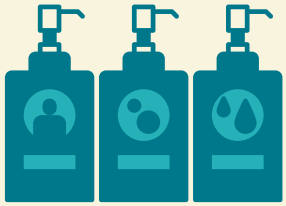
How do you Make It Math in the bathroom?

"I wonder..."

- "I wonder which holds more water, the sink or the tub..."
- "What would happen if we put all the water in the tub into the sink?"

Additional Resources

- Math in the Bath: Includes ideas for infants, toddlers, and preschoolers



FROM A PARENT

"We use liquid soap for my daughter, so we measure how many pumps we need for the loofa. How many does her older brother need? How much does mommy need? That's a math moment."

- SARA

Doing the Laundry

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Sort clothes together. Make one pile for lighter clothes and one for darker clothes.	"Can you put the socks together in pairs?" "Which pants belong to you and which to me? Why?"	"Why are shirts different from pants?" "Fold a pile of your clothes and a pile of Nana's clothes. What are the differences?" "How do we fold things in half? In fourths?"
NUMBER CONCEPTS	Practice counting items 1–5.	"How many socks are there?" "I see four pairs of pants. Do you agree?"	Play with numbers 1–10, then 1–20. "Will you put out eight socks, please?" "If you put away seven shirts, how many will be left?"

More Concepts

- Ask questions that encourage your child to think about **space and place**. *"Why do we put the laundry detergent above the washing machine?"*
- Ask your child to **count** the number of clothes going in the washer. "*How many pairs of pants are we washing?"*
- Ask your child to help with **measuring** the laundry detergent. *"We need to add one full cup. Can you help?"*

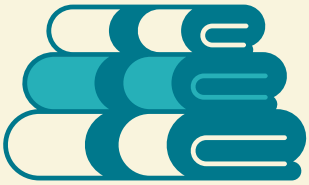
How do you Make It Math with the laundry?

"I wonder..."

- "I wonder how many of your shirts will fit in this drawer..."
- "What would happen if we took away three shirts?"

Additional Resources

- Let's Wash that Math Right Into Laundry Day: Shows how math can be worked into laundry for preschool through early elementary-aged children



FROM A PARENT

"My girls like cleaning. When we're pairing up clothes, matching up pairs, and separating piles by colors, we use math all the time. They are adding, subtracting, and totaling numbers of clothes. They have the answer before I even ask. They love it!"

- DÉJON

With Your Wallet

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Sort loose change.	"What shapes go together?" "What colors go together?"	"How tall can you pile the coins?" "Which is the biggest coin? "Which is the smallest?" "I wonder if we can build a house with coins..."
NUMBER CONCEPTS	Practice counting items 1–5.	"I see two pennies." (With two fingers raised) "Will you please hand me this many quarters?"	Increase the numbers and magnitude. Assign values to the coins: One cent, five cents, 10 cents, 25 cents. "How many pennies will you have if I give you three more?" "How much money will you have if you pay me a quarter?"

More Concepts

- Bring your child's attention to the **shapes** of coins and bills. *"How is this quarter different from this dollar bill?"*
- Ask 'What if..." questions about a jar of coins. "*What if we* **added** *three nickels?"*
- Ask your child to **count** the number of certain coins. "*Can you tell me how many dimes are in this pile?"*

How do you Make It Math with money?

"I wonder..."

- "I wonder why coins are circles and bills are rectangles..."
- "What would happen if we took three of these nickels away?"

Additional Resources

- Funny Money: Activity using coins for children K-2 and grades 3–5
- How Many Are Hiding?: Activity that uses money—or any object—to explore the fundamentals of addition and subtraction by hiding objects

FROM A PARENT

"Math is everywhere. You don't realize you're doing it. The more parents realize they're doing math with their kids, the more fun they can make it!"

- SONJA

Listening to Music

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Pick simple songs with a repetitive melody. Sing and dance along to them together.	"Let's clap to the beat of the song."	Pick more complicated songs, including those with verses and a different chorus. Sing them together. "How is the verse different from the chorus?
NUMBER CONCEPTS	Practice counting 1–5 using musical instruments.	"I'm going to play three notes. Let's count together." "Hit the drum two times."	Increase the numbers. "Jump eight times for each note in the chorus."

More Concepts

- Bring your child's attention to the **pattern** of the beat. *"What do you notice about the beat? Does it repeat over and over again?"*
- Ask your child to **count** the number of beats in a chorus. "*How many times did we clap to the beat?"*
- Ask questions that can be answered by collecting **data**. *"Are there more horn sounds or drum sounds in this song?"*

How do you Make It Math with music?

“I wonder...”

- “I wonder why music makes me want to dance...”
- “What makes this song different from the last one we listened to?”

Additional Resources

- Got Rhythm and Drum Major: Two activities that play with music and math
- Dance Patterns: Explores patterns with movement
- Math at Your Fingertips: Songs and Fingerplays for Preschoolers: Use music and hands to set math to music

FROM A PARENT

“Math is everywhere. Games, cooking, music... my kids are even playing billards and figuring out different angles!”

- ALECIA

Playing Games

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Play with blocks, particularly ones with different shapes, to help children engage spatially.	"What shapes look the same? What shapes look different?" Try puzzles, or make your own with a cereal box cut up into different shapes.	Try building towers. "Whose tower is taller? Whose is shorter?" Play "Go Fish" to categorize different cards. Sort the deck by color, shape, and number. "I wonder how many piles we'll have if we sort them by red and black..."
NUMBER CONCEPTS	Practice counting 1–5 with blocks, dice, or cards.	"These dice each have a side with two dots." "There is a number on this card. How many is it?"	Increase the numbers to include 1–10, then 1–20. Include magnitude. Play age-appropriate games and count the pieces, cards, or parts of the game. Notice when math is a part of the game. "If I have to pay $100 for that card, how much money will I have left?" Notice math in video games. Ask "I wonder...?" questions about angles and shapes in basketball or on a pool table.

More Concepts

- **Organize** game pieces by color or shape. *"Can you put all the green cards in a pile?"*
- A game board can be used to talk about **measurement.** *"How many spaces would I have to move to get to the green space?"*
- Games can represent **maps or diagrams** to help a child move to different places. *"What would happen if you moved your game piece to the end?"*

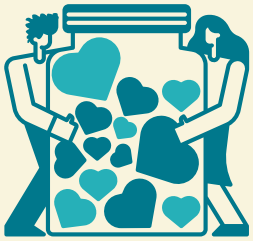
How do you Make It Math with games?

"I wonder..."

- "I wonder what number I would have to roll to catch up to you..."
- "What would happen if we took away five cards from this pile?"

Additional Resources

- Number Path Games: Helps children develop a mental number line
- One More, One Less: Using fingers and hands, explore the idea of adding one more or having one less
- Games to Play At Home Using Attributes for Math Thinking: How are common games related to math? This article walks you through it.
- Quantity Cards: Special cards for special math games!
- Get on the Right Path: Make Your Own Number Sense Activities: Path games are fantastic ways for families to spend time together and have fun while doing math.



FROM A PARENT

"We used to play Candy Land a lot. We would talk about the colors, or the number of squares. Or we would play the card game 'War,' where everyone would lay down a card and the highest card wins. We'd play as a family. 'Are you sure ten is higher than eight? Let's count.' We were always trying to fool the kids, but the kids caught on!"

- SONJA

Bedtime

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Compare the sizes and shapes of common bedroom items.	"Which blanket do you want, the long one or the short one?" "Say goodnight to all of the red toys in your room."	"Select your two biggest stuffed animals to sleep with tonight, or your three smallest." "Pick out the widest book to read tonight."
NUMBER CONCEPTS	Practice counting 1–5.	"You picked two books." (Holding up one finger) "You get to sleep with this many stuffed animals tonight."	Increase the numbers little by little. Include magnitude. "You picked seven books! That's four too many. How many will we read?" "How many stuffed animals are on your bed right now? How many more can we add?"

More Concepts

- Bring your child's attention to the **patterns** on the blankets or sheets. "*What do you notice about the lines?*"
- Talk about **space and place** by moving around the room. "*What's different if we lay at the other end of the bed?*"
- Ask your child about the furniture arrangement to point out **shapes**. *"What if we put the bed over there?"*

How do you Make It Math at bedtime?

"I wonder..."

- "I wonder what number I would have to roll to catch up to you..."
- "What would happen if we took away five cards from this pile?"

Additional Resources

- BedtimeMath.org: Website and app with bedtime math activities

FROM A PARENT

"We can make our own games. We can count the stairs. At age one, we started to go up and down, hold hands, and count one, two, three down and up the stairs. My kids learned to count that way. It doesn't require any fancy toys."

- TOYIN

Outdoors

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Play with outside toys, like balls or a sandbox, and describe the shapes.	"This is a sphere. It curves all the way around. Let's find more shapes." "Let's find all the flowers that look like this one." "What is taller than you in the yard? What is shorter?"	Build a tower with boxes or other large toys. Draw shapes and colors on the outside. Use sidewalk chalk to draw your own hopscotch course with shapes and colors.
NUMBER CONCEPTS	Count everything! Start with numbers 1–5.	"Bring me four rocks." "How many wheels are on your tricycle?" "Jump on two sidewalk squares."	Increase the numbers and add addition and subtraction. "Skip for five sidewalk squares, hop for seven, and walk backwards for twelve." "Who can build the tallest rock tower? Count each one that you stack."

More Concepts

- Ask your child to gather data outside and draw conclusions. *"What kind of animal do you think made these tracks?"*
- Ask your child about distances outside. *"How far do you think the walk to school is?"*
- Ask 'What if..." questions about what they see. *"What if we added five more trees to this field?"*

How do you Make It Math outdoors?

"I wonder..."

- "I wonder how many leaves are on a tree..."
- "What would happen if the wind blew all of the branches down?"

Additional Resources

- Sidewalk Math: Templates and stencils to create math patterns on the sidewalk
- We're Going on a Math Walk, Going to Find Some Math Talk: Tips for talking about math in your neighborhood

FROM A GRANDPARENT

"My granddaughter has all the gardening equipment I have, but in her size. She cuts the dead flowers off with her scissors. We count how many flowers are alive or dying and then enjoy the diversity of colors in the flowers. We can implement math wherever we are in the garden."

- LILIA

Math in Our Community

Shared Spaces

Wherever we are in shared spaces, we are in community. On the bus, we are with families. At the grocery store, we are with neighbors. In the park, we are with parents and children from our community. In spaces where we gather, we have the opportunity to explore math with our children and model these conversations for other families. We can encourage others to make "I wonder..." statements related to math!

Collaboration

Have fun talking about math with your child at home. As you venture into the community and begin to apply the same Family Math concepts, invite others to join. In each section, you will find ideas to make everyone feel welcome so they can join in the fun.

Support

Did you know that simply prompting families to engage children in math-related conversations can increase math talk? Researchers who evaluated the effects of placing math-related signs in grocery stores found that from a few simple signs, more math talk took place! In your community, you have the opportunity to advocate for what you'd like to see in different spaces. Ask for prompts at your grocery store, or signs at the post office, or fun math placemats at your favorite restaurant.

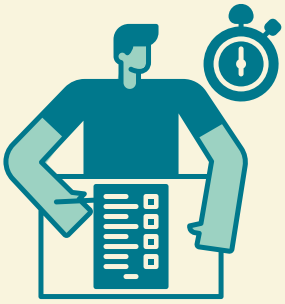
Schools

We hear you! We realize that school is not listed as a key location to engage in Family Math. We define Family Math as activities that happen outside of the classroom and within the context of family

relationships, the community, and everyday life. But of course math is also at school! Ask your child's teacher how you can best support their math learning from home—like homework help, playing games, and learning lessons together. You can also talk to your child's teacher about what you're already doing—and what your child loves to do around math—and see if there are other home activities that will complement their classroom lessons. Additionally, you can ask the staff about family math nights at school that your entire family can attend.

Make it Your Own

As always, we encourage you to take the ideas in this toolkit and adapt them to your own individual family, home, and life. Use these ideas as a starting point and talk them through in other languages, or adapt them to traditions from your culture.



FROM A PARENT

"How we feel about math impacts the way we develop our skills in math. My 13-year-old is good at math, but every time he has an exam, he fails. We were struggling with that. His anxiety around failing kept him from learning. Now, he feels more confident. He learned to stay calm, control his emotions, and I am able to help him."

- ZULLY

Grocery Shopping

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Use descriptive language to talk about differences between items. Encourage children to sort the groceries in the cart by color, shape, or size.	"How is a carrot different from a cabbage?" "How is a can of black beans different from a bag of black beans?" "What are the three largest items in our cart?"	Approach your grocery list with shapes and comparisons in mind. "Let's grab the biggest items first. What would those be?" "Help me sort the cart so the most fragile items are on top."
NUMBER CONCEPTS	Count items together. Try simple math problems using the items on your list.	(Holding up fingers) "We need this many bananas." "We need two cans of soup. How many do we have in the cart? How many do we need to put back?"	Use the scales in the produce section. "We need two pounds of potatoes. How many do we have? Is that too much or too little?" Have children compare prices. "Which apples are the least expensive?"

More Concepts

- Bring your child's attention to the **patterns** on the shelves or aisles. *"What do you notice about the way the food is on the shelves?"*
- Talk about **space and place** in the parking lot. *"Do you remember where we parked the car?"*
- Discuss **measurement** as you buy ingredients for a recipe. *"How much flour should we buy to bake the brownies?"*

How do you Make It Math in the grocery store?

"I wonder..."

- "I wonder why the fruit is sorted this way..."
- "What would happen if we added two more potatoes to the bag?"

Additional Resources

- Putting Groceries Away is Hands-on Shape Activity for Young Children: Shows how unpacking groceries can be a great time for math

FROM A PARENT

"When we go to the grocery store, it's a math problem: 'How much money are we spending on how many items?' It's like Monopoly in real life. It gets them doing different equations: 'This says $6.14 for two, but this is $6.30 for one.' I keep waiting for them to roll their eyes, but they love it, and so do I! As we go along, we are all getting better at it. Talking about math as regular conversations helps them notice how much it's in our everyday life."

- DÉJON

At the Library

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Introduce counting or sorting concepts using books, blocks, or toys at the library.	"What is the smallest book you can find? Let's read that one." "Show me a skinny book." "Pick out all the red LEGOs in this pile."	Add onto the sorting principles by asking "What if..." questions. "What if we put the books into the return bin from largest to smallest?" "What order are the books on the shelves? Why do you think they are in that order?"
NUMBER CONCEPTS	Count items together. Try simple math problems using items in the library.	"You can check out two books. Choose the two you would like." "We have four books here. How many will we need to put back if we only get two?"	Add more advanced concepts. "I wonder how many children are here for story hour... Let's count them." "How many years old are you? You can check out that many books." "Let's count 20 books. I'll say the odd numbers and you say the even numbers."

More Concepts

- Ask 'What if..." questions about the number of books you check out. *"What if we* ***added or subtracted*** *two?"*
- Ask your child to gather **data** about what they see and what it means to them. *"There are a lot of children over there. What do you think that means?"*
- Use the books in a library as a unit of **measurement**. *"How many books do you think we could fit on that shelf?"*

How do you Make It Math at the library?

Ideas for Collaboration

- Ask your librarian to count out the books as you check them out.
- At story hour, ask the child next to you to share their favorite shape or color. Compare that with your child's favorite. *"How are they alike? How are they different?"*

"I wonder..."

- "I wonder how many pages are in this shelf of books..."
- "What would happen if 20 more children were here for story hour?"

Additional Resources

- At-Home Activity Cards: Counting: Downloadable activities to accompany children's books with math concepts
- Eight Counting Books for School and Home That Tackle Big Ideas: Books to encourage children to want to count

FROM A PARENT

"There are lots of calculations that can be made at the library. 'How many days do we get to keep the book?' If they lose a book or forget a book, it will cost a certain amount each day: 'Remember to bring it back. It will cost this much.' Then, at home: 'How many days are left before we need to bring the book back?'"

- ALECIA

Hitting the Road

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Sort what you see outside the window.	"Point out the red cars." "Which one is a truck and which one is a van? How are they different?" "How many wheels do you see?" "What is taller? A tree or a car?"	Add on shapes, weights, and directions. "What shape is that STOP sign?" "Where do you see a triangle?" "I wonder what weighs more, a bus or a train..." "Are we going north or south?"
NUMBER CONCEPTS	Count what you see out the window. Start with numbers one through five.	"Count all the blue cars." "Count the sidewalk squares as we walk." "How many colors are on the stoplight? What are they?"	Count up to 10, then 20, then more. "Let's try counting backwards from 20 down to one." "Are the mile markers getting higher or lower?" "How many restaurants do you see?" "How many stop signs did we pass?"

More Concepts

- Point out the patterns on the road way. *"What do you notice about the lines in the road?"*
- Ask your child about **space and place** on the drive somewhere. *"Let's plan the fastest way to get there. Do we turn left or right here?"*
- Ask questions using different units of **measurement**. *"How many steps do you think we've gone?"*

How do you Make It Math on the road?

Ideas for Collaboration

- Play a game with your child on the bus, such as counting bicycles or pointing out everything of a certain color. If fellow passengers or children look over at your playing, invite them to join!

"I wonder..."

- "I wonder if we're going faster or slower than that bus..."
- "What would happen if all the passengers wearing red got off?"

FROM A PARENT

"We're always doing math in the car. They like Kids Bop, a station designed just for kids. Everyone gets five songs. They count: 'That was song number three and now you get two more.' They try to say, 'It wasn't a song, it was a remix, so it didn't count.' That's a lot of fun."

- SARA

At Parks & Playgrounds

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Have your child point out similar shapes and colors.	"What do you see that is yellow?" "Where do you see circles?" "I wonder which is bigger, the bird or the dog."	Have your child find two leaves or sticks. "Tell me how this one is different from the other one" "What are the three tallest things on the playground? What about the three widest things?"
NUMBER CONCEPTS	Play with numbers one through five. If the playground has numbers painted somewhere, point them out.	"What is this number?" "Will you bring me that many rocks?" "Let's count the stairs to the slide. How many stairs would there be if it had two more?"	Increase quantities to 10, then 20. Play with time by having races. "How many seconds do you think it will take for you to run to the basketball hoop and back?" "Can you do it faster?" "What if you ran backwards?"

More Concepts

- Give your child a camera and ask them to take pictures of different **shapes**. *"What are the smallest things you can find? The curviest?"*
- Ask your child to gather **data** about what the weather means for a day at the park. *"Do you think we should wear our coats? How do you know?"*
- Ask 'What if..." questions about the number of people they see. *"What if we* **added** *two more families to the playground?"*

How do you Make It Math at the park or playground?

Ideas for Collaboration

- Ask other children to join in the game at the playground. *"Can you count with us?"* or *"What shape is that?"*
- Help children start to play a game, but encourage the math that's part of it. *"We're going to play tag, but if you've been 'it' twice, you can't be 'it' again until everyone has been twice, too"*

"I wonder..."

- "I wonder why the slide is taller than the swing..."
- "What would happen if there were no stairs to the top?"

Additional Resources

- Sidewalk Math: Templates and stencils to create math patterns on the sidewalk

FROM A PARENT

"At the park, we count squirrels and the toys we brought with us, like frisbees, footballs, and soccer balls. We count how many we put back, or sort who has which toy. The plus and minus games are great for kids, but it also gets their feet wet for multiplication and division. Now they aren't afraid of it."

- DÉJON

At the Post Office

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Encourage your child to help you sort the mail.	"I wonder which letter is the widest or tallest..." "Sort these from biggest to smallest." "Which is heavier, the package or the envelope?"	At the Post Office, ask your child to sort some of the different sized boxes. "Which is the right size for what we need to mail?"
NUMBER CONCEPTS	Count items using numbers one through five.	"Let's count the number of letters we are putting in the slot." "How many pieces of mail did we get today?" "If I recycle the junk mail, how many pieces of mail will we have?"	Increase quantities to 10, then 20. Have your child mail something to themselves. "I wonder how many pages are in this catalog..." "I wonder how long it will take to arrive..."

More Concepts

- Ask your child about **measurements** at the post office. *"Would this envelope fit the letter we have if we folded the letter in half? What about if we folded it in thirds?"*
- Ask your child to gather **data** about what postage is needed. *"How many stamps will your letter need? How do you know?"*
- Make "I wonder..." statements about different **shapes and sizes.** *"I wonder what would happen if this letter was double its size."*

How do you Make It Math at the post office?

Ideas for Collaboration

- Ask the postal worker to explain what they are doing with the scale and the prices. *"Your letter weighs less than one ounce, so it needs one stamp."*
- Ask the postal worker "What if..." questions: *"What if the letter was more than one ounce?"*

"I wonder..."

- "I wonder how heavy this box is..."
- "What would happen if we took out half of what's inside the box?"

FROM A PARENT

"My husband works nights. The kids have to figure out when he is getting up. It's amazing how fast they learn to tell time. Some of the most simple things with math help them figure out when their dad is getting up. It's important to them."

- ALECIA

At a Restaurant

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Describe the shapes of utensils. Compare the differences in sizes and shapes of different place settings.	"Which is bigger, the salt or the pepper?" "Why is a fork different from a spoon?" "What are the three heaviest items on the table?"	Make a tower with condiments or jelly packets. "What makes something good to build with? Why?" "Do you see any circles? Any triangles?"
NUMBER CONCEPTS	Explore numbers one through five.	"I just gave you two ketchup packets. What else do we have two of?" "What if I take one away? How many are left?" "How many chairs are at our table? What if we took one away?"	Ask your child to help with the cost of items on the menu. "How much are the french fries?" "How much would it cost if we ordered two of this dish?"

More Concepts

- Bring your child's attention to the **patterns** on the table or the plates. *"What do you notice about the lines?"*
- Ask your child to gather **data** about the cost of the meal. *"Which is more expensive, the burger or the grilled cheese?"*
- Talk about different units of **measurement** in a restaurant. *"How many fries do you think can fit in that bag?"*

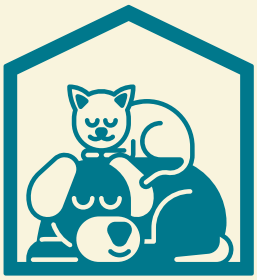
How do you Make It Math at restaurants?

Ideas for Collaboration

- Ask your server to count everything they put on the table. *"One, two, three glasses of water."*
- If you frequent a restaurant that has children's paper placemats, ask if they'd be willing to use one that has numbers or shapes on it.

"I wonder..."

- "I wonder how many grains of salt are in the shaker..."
- "What would happen if we took away half the chairs at this table?"



FROM A PARENT

"When it is time to feed the dog or the cat, we ask, 'Do you think the cat or the dog will get more food?' or, 'Let's only give half a bowl this time.'"

- SONJA

At the Doctor

MATH CONCEPT	START HERE ...	ASK ...	THEN ADD ON ...
CATEGORIES	Describe the shapes you see in the waiting room or exam room.	"I see three squares around the room. How many squares do you see?." "I have four fingers and one thumb. How are they different?" "How are hands different from feet?"	Make a prediction. "I think I weigh more than you do. Let's measure to find out." "Who is taller, you or your brother?"
NUMBER CONCEPTS	Explore numbers one through five.	"How many children do you see in this waiting room?" "You get one pump of hand sanitizer. Show me one."	Increase the numbers. "Let's wash our hands for 20 seconds. Count with me." "You weigh 45 pounds. Let's count backwards from 45."

More Concepts

- Bring your child's attention to the **shapes** they see. *"What is different about the mallet and the pen the doctor is using? What's similar?"*
- Ask your child to gather **data** about what they notice. *"There are lots of stickers in that drawer. What does that tell you?"*
- Talk about different units of **measurement** at the doctor. *"How many inches do you need to grow to reach 36 inches tall?"*

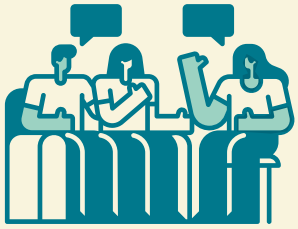
How do you Make It Math at the doctor?

Ideas for Collaboration

- Ask the nurse to say aloud all the numbers they are recording, such as weight, height, pulse, blood pressure, etc.
- Request that they have math games in the waiting area or signs that encourage math talk.

"I wonder..."

- "I wonder how many times my heart beats in a minute..."
- "What would happen if ten more children were in the waiting room?"



FROM A PARENT

"Many parents fear they are not good enough at math to teach their kids anything. Some of us struggle with math concepts in English. It can be frustrating. Parents can pass these fears on to their kids without realizing it. It's important to have open conversations about how to support our kids and not pass along our fears to them about math."

- ZULLY