Home & School CONNECTION®

Working Together for School Success

April 2019

Harmony Elementary School
Dr. Barbara Griffieth, Principal

SHORT NOTES

D.E.A.R. Day

This April 12, celebrate Drop Everything and Read Day with a reading campout—or "camp-in." Pitch a tent in the backyard, or let your youngster make a living room fort. Then, take turns reading aloud, read silently together, or do both.

Idea: Encourage regular reading by making D.E.A.R. a monthly tradition.

DID YOU KNOW?

Spending time outdoors can build your child's observation skills. Play "I Spy" with clouds ("I spy a cloud that looks like a rabbit") and see who else can spot it, too. Or take a walk with a magnifying glass, and have your youngster look closely at plants and animals.

Online homework

If your youngster does homework online, you may wonder how to support him. Just like with pencil-and-paper assignments, invite him to explain his homework to you, and ask to look over his finished work before he sends it. Also, make sure he closes tabs he's not using for assignments so he doesn't get distracted.

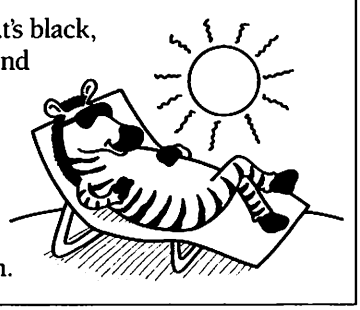
Worth quoting

"The shortest way to do many things is to do only one thing at a time."
Richard Cecil

JUST FOR FUN

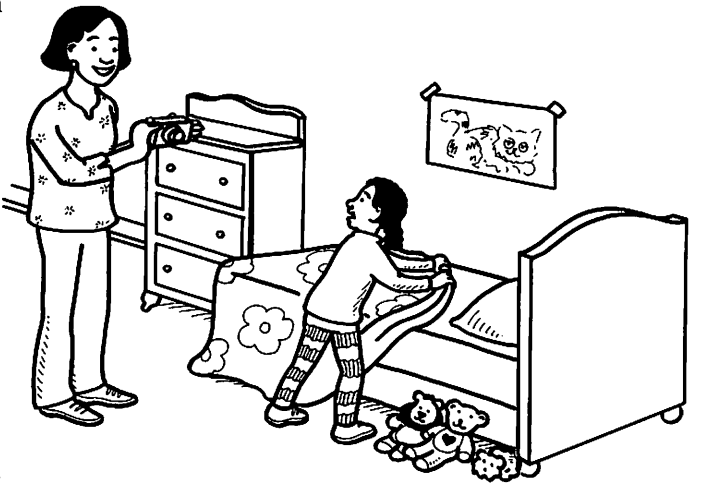
Q: What's black, white, and red all over?

A: A zebra with a sunburn.



Being responsible

Megan keeps up with her homework and is always ready for soccer practice on time. The reason? She has learned about responsibility from a young age. Consider these hands-on ways to help your youngster be responsible, too.



Part of the team

Show your child that everyone's responsibilities matter. Have her cut bookmark-sized strips of paper and write a family activity on one (eating dinner). On the others, she should write jobs that make it happen (plan the meal, buy groceries, cook, set the table). Now let her link the strips to make a chain. She'll see that dinner relies on everyone doing their job!

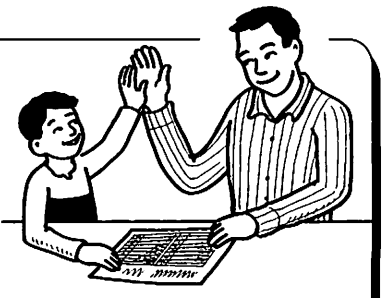
Around the clock

Help your youngster get in the habit of handling her responsibilities on time. Let her draw a clock on paper or poster board and add sticky notes labeled with daily tasks. She might put "Homework" at 4 p.m. and "Walk the dog" at 7 p.m. Have her post the clock in a visible spot as a reminder.

Caught in the act

"Catch" your child being responsible, and tell her you noticed. ("That was responsible of you to throw away your trash.") You could even snap photos of her responsible behavior (say, making her bed) and hang them on the refrigerator. Seeing the photos will inspire her to continue being responsible.♥

Review report cards



When your child's next report card arrives, use it to encourage him to finish the school year strong. Try these strategies for discussing it.

1. Give your youngster and his report card your full attention. For example, find a quiet spot, put away your phone, and turn off the TV.

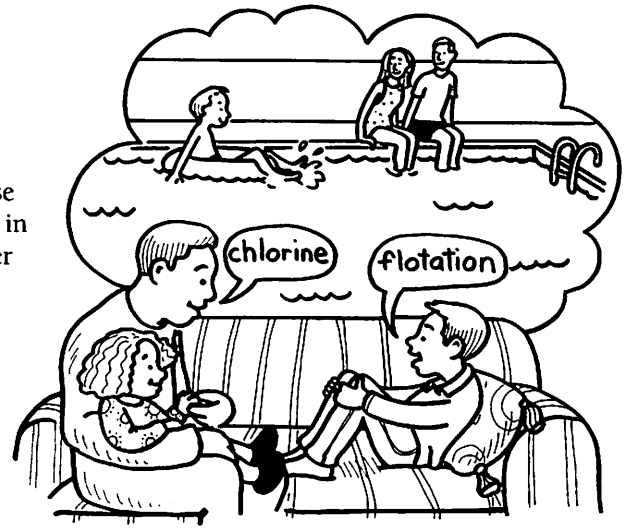
2. Find reasons to high-five your child. Maybe he brought up his writing grade or the teacher commented on how well he gets along with classmates.

3. Talk about ways he could improve. If his math grade dropped, he might double-check work for careless errors. Or if he needs to be more organized, share strategies you use, like keeping office supplies in different-sized containers.♥

Build a rich vocabulary

Where will your child hear the word *stethoscope*? What synonym could he use for *hilarious*? Hearing and saying words in context is a good way for your youngster to learn and remember them. Consider these ideas to improve his vocabulary.

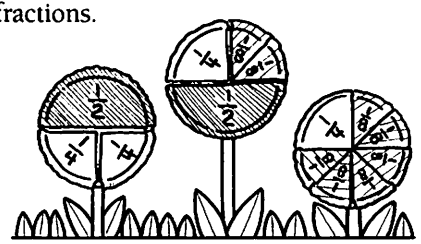
Match places with words. Ask your child to name a place in your community (*bakery, swimming pool*). Take turns saying a word you might hear or say there. When you run out of familiar words (*doughnut, swim*), try to come up with less common ones (*aroma, chlorine*). The last person who thinks of a word picks the next location.



Use synonyms. Hold a conversation full of synonyms—words with similar meanings. Your youngster might say, "The *funniest thing happened* in the *cafeteria* today." Then, go back and forth, replacing as many words as possible with synonyms. *Examples:* "What *hilarious incident occurred* in the *lunchroom*?" or "I love it when *comical events transpire* in the *canteen*!" *Tip:* Keep a thesaurus or dictionary handy to find new synonyms.♥

ACTIVITY CORNER Fraction flowers

Spring is in bloom—and so are these "flowers" that let your youngster explore fractions.



1. Have your child color three paper plates, each a different color.

2. She can use a ruler and marker to draw lines dividing the plates into fractions—one into halves, another into fourths, and the other into eighths.

3. Ask her to label each "petal" with its fraction ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$) and cut the plates apart on the lines.

4. Now let your youngster see which fractions are *equivalent*—or represent the same parts of a whole—by creating flowers with different color petals. For example, if she glues a purple half and two orange fourths onto a new plate, that's a whole flower ($\frac{1}{2} + \frac{1}{4} + \frac{1}{4} = 1$).♥

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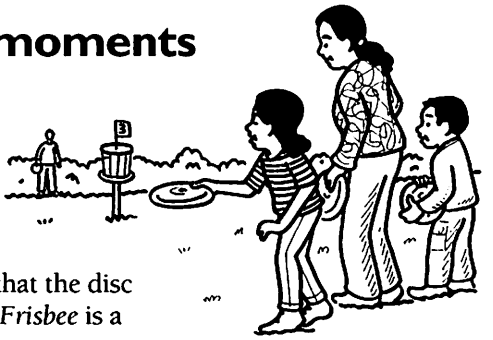
PARENT TO PARENT Teachable moments



During a recent game of disc golf at a local park, our family had some fun conversations—and I think my daughter Esme learned a lot, too.

It started when Esme said she was going to "toss the Frisbee." I pointed out that the disc wasn't actually a Frisbee! I explained that *Frisbee* is a brand name that people use generically. Soon we were naming all sorts of products like that, such as inline skates (*Rollerblades*) and ice pops (*Popsicles*).

Then, as we played, Esme asked why there were three different types of discs in the game. That led us to a conversation about engineering, as we examined the discs and talked about how their designs affect how far, fast, or straight they fly.

All this made me realize that simple family outings can be learning opportunities!♥

Q & A Handling complaints

Q: *My son has been complaining a lot lately, even about little things. For example, he'll gripe if we're out of his favorite cereal or his sister moves his backpack. How can I handle this?*

A: Try acknowledging your son's feelings in a calm, upbeat voice. Then, encourage him to find a solution. You might say, "I know you're disappointed about your cereal. What could you eat instead?"

Resist the urge to say, "That's nothing to complain about," which can discourage him from expressing his feelings. Instead, brainstorm ways to "flip" his thinking. For instance, he could say, "I have cereal every day, so it might be nice to eat something different."

With practice, he'll get out of the habit of complaining—and make life more pleasant for everyone.♥

Beginning Edition

Math+Science Connection

Building Excitement and Success for Young Children

April 2019

Harmony Elementary School
Dr. Barbara Griffieth, Principal

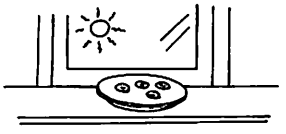
TOOLS & TIDBITS

Number symmetry

Ask your child to write the number 808 and lay a piece of yarn across the middle horizontally, then vertically. What does she notice? It's symmetrical—the top and bottom are mirror images of each other, and so are the left and right. Let her try other numbers and even objects (fireplace, window) to find more examples of symmetry.

Raisins in the sun

Your youngster can make a tasty treat with help from the sun! Have him rinse a few grapes, remove the stems, and put them on a plate in a sunny window.



In a few days, the grapes will start to shrivel into raisins as the sun's heat causes the water inside to evaporate.

Web picks

🖳 Let your child "splat" fruit to solve addition and subtraction problems, pop balloons to learn about money, and try other fun games at *sheppardsoftware.com/math.htm.*

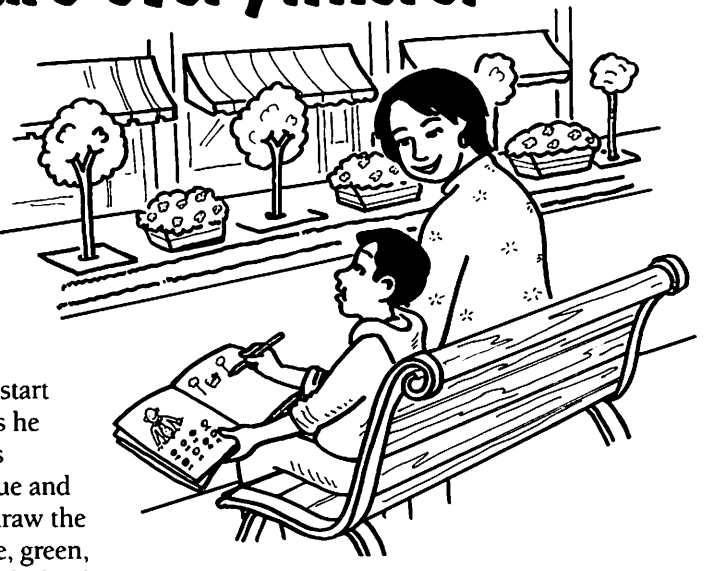
🖳 At *nps.gov/webrangers*, your youngster will "visit" the national parks to learn about forest fires, salmon, pumas, and more.

Just for fun

Q: What becomes smaller when it's standing on its head?

A: The number 9!

Patterns are everywhere!



Morning, noon, and night, patterns fill your youngster's world. Playing with them builds his math skills, since numbers follow patterns, too. Encourage him to find, follow, and make patterns with these ideas.

Keep a journal

Suggest that your child start a journal of all the patterns he sees in a week. Perhaps his teacher wears a tie with blue and green polka dots. He can draw the pattern in his journal (blue, green, blue, green) and label it with the day (Monday) and place (school). Invite him to show you his patterns and count how many he found.

Be a copycat

Try this game to help your youngster think logically about what's next in a pattern. Start with a silly movement pattern (hop, hop, waddle, hop, hop, waddle). Do it twice, then your child can copy you to find out what comes next (hop). Repeat the pattern until you both reach the other side of the room or yard. Now follow a pattern he makes up.

Play with numbers

Your youngster can practice skip counting and make patterns with numbers. Take turns writing a number pattern with one blank. *Example:* 2, 4, __, 8. Or say the numbers aloud, clapping once for the missing number. The other person fills in the blank and explains the pattern. ("The number is 6, because the pattern is skip counting by 2s.")

I'm a rock collector

Big or small, shiny or dull... rocks make excellent specimens for your child to study and classify, just like a scientist does! Here's how.

Collecting. Together, take a walk to gather rocks. Ask questions to help your youngster describe their *attributes*—color (gray, brown), texture (smooth, rough), size (big, medium, small), and shape (round, flat). Let her observe her rocks more closely through a magnifying glass. Perhaps she'll see lines, sparkles, dents, or holes.

Arranging. Suggest that your child sort her rocks according to color, texture, size, or shape. Then, she can stack several rocks from biggest to smallest and display her collection as a garden landmark (called a *cairn*).

What does the graph say?

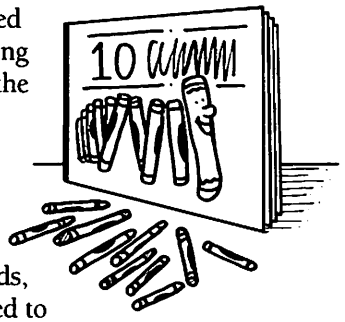
The most. The least. Graphs tell us a lot about data through bars or pictures. With these activities, your child can create her own graphs to organize and compare data.

My graphing basket. Toys left out? Have your youngster gather them in a laundry basket and use them to make a 3-D graph. She should line up each type of toy (cars, blocks, dolls) evenly in a separate column. Ask questions to help her analyze the data in her graph. *Examples:* Which toy is there the most of? Are there more blocks or cars?

Question of the week. Let your child write a question ("What do you like to do on a rainy day?") on a sheet of paper. Then, she could add options in separate columns: "Read books," "Watch movies," "Play board games." She can post her survey on the refrigerator along with a few magnets. To answer, each family member or visitor puts a magnet in the column of her choice. Your youngster could analyze the graph by counting and comparing the magnets. How many people picked movies? How many more chose books than games?

PARENT TO PARENT: Act out counting books

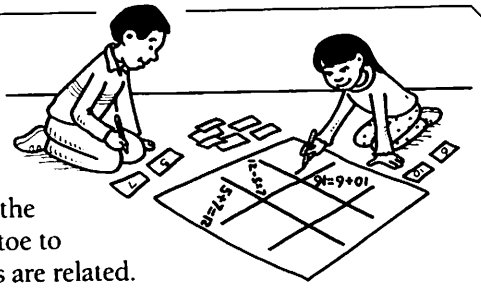
My son Lionel came home from school the other day excited about a counting book his class acted out during math time. The teacher read *The Crayons' Book of Numbers* by Drew Daywalt, and the kids had to search the classroom for 10 missing crayons and count to be sure they found them all.



We decided to get counting books from the library and act them out at home. For a book about counting birds, Lionel wanted to go outside and count real birds as I read. Then as I read one on counting backward, he got five strawberries and ate one as we turned each page—until there were zero strawberries left.

He's having fun counting in different ways, and we're both enjoying reading together.

MATH CORNER: Fact-tac-toe



How are 5 + 7 = 12 and 12 – 5 = 7 related? Along with 7 + 5 = 12 and 12 – 7 = 5, they make up a *fact family*, a group of math facts with the same numbers. Try this twist on tic-tac-toe to help your youngster learn how numbers are related.

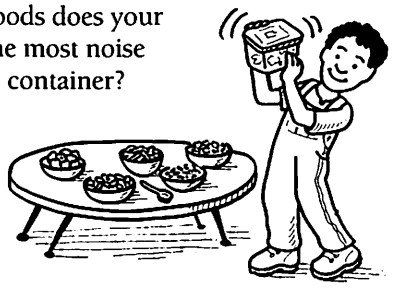
1. Have your child draw a large tic-tac-toe board. Then she can number 10 slips of paper (1–10), mix them up, and spread them out facedown.
2. Each player takes two slips and writes the fact family that the numbers belong to. *Example:* If your youngster gets 6 and 10, her fact family is 6 + 10 = 16, 10 + 6 = 16, 16 – 10 = 6, and 16 – 6 = 10.
3. Play tic-tac-toe as usual, but instead of writing Xs and Os, each person fills in squares with any fact from her family. (Repeat a fact if you run out.) Get three of your "family members" in a row to win.
4. Play again with a new board and new slips.

SCIENCE LAB: Let's make noise!

Your child will shake things up and learn how sound travels with this experiment.

You'll need: measuring spoon, small food items with different textures (gummy snacks, dry beans, popcorn, bread cubes), small container with a lid

Here's how: Which foods does your child think will make the most noise if he shakes them in the container? Ask him to line up the foods in the order he predicts, softest to loudest. He can test his predictions by measuring an equal amount of each food into the container, one at a time, and shaking it.



What happens? Denser objects like gummies and beans make louder sounds when they collide, since their molecules are packed together tightly. Less dense, "airy" items, such as popcorn and bread cubes, create quieter sounds.

Why? Sound travels faster through the denser objects as they hit each other and the container. The faster sound travels, the higher the volume.

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Intermediate Edition

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INFO BITS

Freeze and solve

Dance up a (math) storm with this game! Play music while your child and his friends dance. When you stop the music, everyone freezes. Call out a problem (3 x 7), and the first player to say the correct answer (21) is unfrozen. Then, he gives the next problem.

Ramp it up (and down)

Let your youngster see why an *inclined plane* (ramp) is useful. Have her prop cardboard against a staircase and experiment to find out which is easier: pushing a block up the stairs or up the ramp? Which lands more smoothly, a block pushed down the stairs or down the ramp? Anyone using a stroller or wheelchair knows the ramp works better—up and down!

Web picks

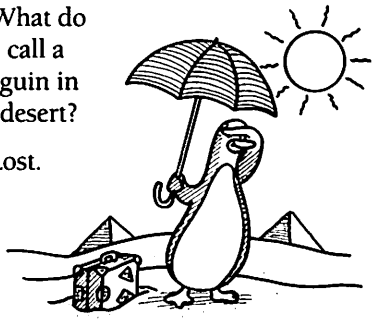
Visit *momath.org/activities* to find virtual and hands-on math activities. Your child can solve online brainteasers or follow instructions to make puzzles and shapes offline.

Your youngster will learn about glaciers, play an energy conservation game, or discover how to make s'mores in your own solar oven at *climatekids.nasa.gov.*

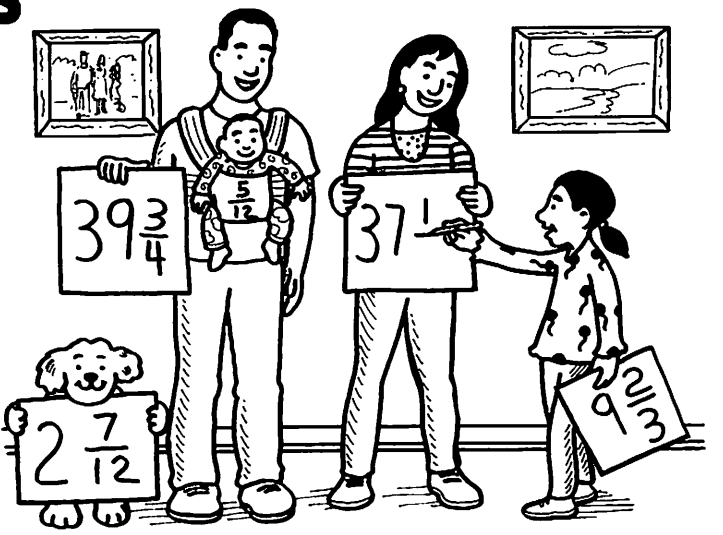
Just for fun

Q: What do you call a penguin in the desert?

A: Lost.



Mixing it up with mixed numbers



If 3 is a whole number and $\frac{2}{3}$ is a fraction, what is $3\frac{2}{3}$? It's a *mixed number*, or a combination of a whole number and a fraction. Here are fun ways your child can work with mixed numbers.

Convert a recipe

Notice mixed numbers in a recipe? Perhaps a muffin recipe calls for $1\frac{3}{4}$ cups milk. Ask your youngster to help you double the recipe, and she'll practice adding mixed numbers.

Have her use small measuring cups to pour $1\frac{3}{4}$ cups milk twice into a larger measuring cup. She'll see that $1\frac{3}{4} + 1\frac{3}{4} = 3\frac{1}{2}$ cups. Or on paper, she might add the whole numbers (1 + 1 = 2) and then the fractions ($\frac{3}{4} + \frac{3}{4} = \frac{6}{4} = \frac{3}{2}$, or $1\frac{1}{2}$), and add the totals ($2 + 1\frac{1}{2} = 3\frac{1}{2}$). Now make the doubled recipe together.

Calculate your age

How old is your child—as a mixed number? First, she could round her age to the nearest month (say, 9 years, 8 months). Since 1 year = 12 months, she's $9\frac{8}{12}$, or $9\frac{2}{3}$, years old.

Now let her figure out how old everyone else in your family is in mixed numbers and list them, oldest to youngest. *Idea:* Celebrate half and quarter birthdays with $\frac{1}{2}$ or $\frac{1}{4}$ of a cake!

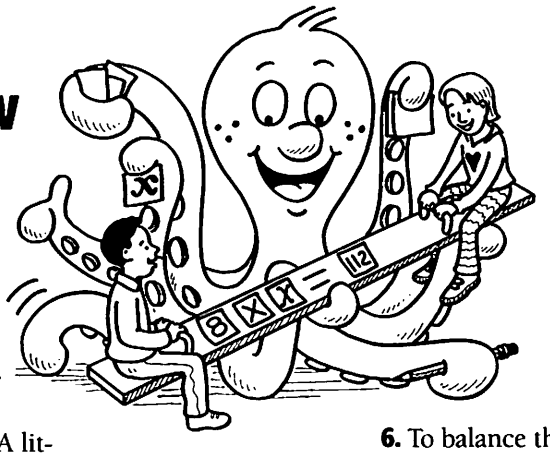
Design a space lander

Your youngster may imagine space travel to be in his future. Let him use his engineering skills now to design a safe landing device for his flight.

What materials will he use? Perhaps he'll put marshmallows (the "astronauts") in a paper cup (the "spaceship"). To help the ship land gently, he could experiment with cardboard, straws, and rubber bands.

Challenge him to drop his landing device from various heights to see what happens. Does it land right-side up without ejecting the astronauts? He can redesign and retest until he has perfected his landing.

Balance the algebra seesaw



Encourage your child to think of an algebra problem as a seesaw that he needs to balance. Here's how.

1. On a sheet of paper, have your youngster draw a seesaw with an equal sign in the middle.

2. Take turns giving each other math problems. You might say, "A little octopus has 8 arms. His whole family has 112 arms. How many octopuses are in his family?"

3. To make this an algebra problem, your child should write an equation to solve for x (the missing element, in this case the total number of octopuses). He could write $8 \times x = 112$, with each number and symbol on a separate sticky note.

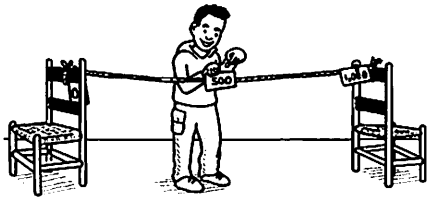
4. Let him place the sticky notes on the seesaw on either side of the equal sign. So 8, ×, and *x* go on one side, and 112 belongs on the other.

5. Next, he needs to get *x* alone on one side. *Tip:* Ask, "What could you do on both sides of the equation to get the *x* by itself?" (Divide by 8, since multiplication is the opposite of division. Now his seesaw says $x = 112 \div 8$.)

6. To balance the seesaw, your youngster can solve for *x* ($112 \div 8 = 14$). So $x = 14$—there are 14 octopuses in the family. Then, let him give you a problem to balance and solve.

MATH CORNER How big is a thousand?

Is 124 a big number or a small one? That depends on what number your youngster compares it to. Boost his number sense with this activity.



Make a number line. Let your child stretch yarn across a room and tie the ends to separate chairs. Then, have him write 0 and 1,000 on two index cards and clip them to opposite ends of the yarn.

Estimate markers. Suggest that he write 250, 500, and 750 on other cards. He can place them along his number line, estimating a quarter of the way, halfway, and three-quarters of the way from 0 to 1,000.

Fill it up. Take turns giving each other a card with a random number like 124. Where does it go? Even though 124 is a lot if your youngster is counting pennies or puppies, he'll see it's not so big when he compares it to 1,000!

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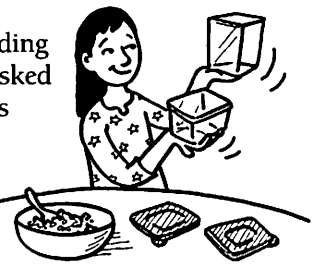
PARENT TO PARENT Spatial reasoning: How things fit



While volunteering in my daughter Talia's classroom, I noticed a set of building blocks. Since you usually see those in younger grades, I asked her teacher about them. Mrs. Foster explained that blocks improve kids' spatial reasoning skills and that visualizing sizes and shapes helps them with math.

The teacher said Talia could work on spatial sense at home by choosing containers for leftovers, loading the dishwasher, or organizing cabinets. So now Talia is in charge of putting away leftovers after dinner. At first she tried containers that were too big or too small. But after doing this a few times, she has gotten better at estimating how much space food will take up.

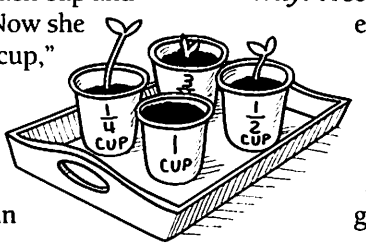
Recently, I asked Talia to help me pack a box of goodies for her uncle, who is deployed overseas. As we worked, we experimented with arranging and rotating items to make them fit. With her help, we were able to add more treats than I expected.

SCIENCE LAB Seed race

How deep should seeds be planted to sprout the fastest? Your child will find out with this experiment.

You'll need: four 16-oz. paper or plastic cups, measuring cups, potting soil, eight fast-growing seeds (radish, marigold), marker, water, paper, pencil

Here's how: Let your youngster measure $\frac{1}{3}$ cup soil into each cup and place two seeds on top. Now she should label the cups "$\frac{1}{4}$ cup," "$\frac{1}{2}$ cup," "$\frac{3}{4}$ cup," and "1 cup," and measure the corresponding amount of additional soil into each cup. She can place the cups on a tray in a sunny spot and water them as needed to keep the soil damp. Have her observe the cups and record changes for two weeks.



What happens? The sprouts from seeds topped with $\frac{1}{4}$ cup of soil should appear first. Those covered with 1 cup of soil may not reach the surface at all.

Why? A seed contains just enough energy to sprout and start growing toward the surface. If the journey is too far, the sprout may die before it ever pokes through the surface and gets a chance to grow into a plant.