

Math+Science Connection

Beginning Edition

Building Excitement and Success for Young Children

April 2021



TOOLS & TIDBITS

Magazine math

Let your youngster use old magazines for this number-sense activity. Have her cut out numbers from articles, headlines, or photo captions and glue them on separate pieces of paper. Then, she could draw pictures showing matching numbers of objects. *Example:* Draw a bowling alley with 10 pins for the number 10.

Bigger bubbles

Hold a family bubble-making contest. Help your child mix together 1 cup water, $\frac{1}{4}$ cup dish soap, and 2 tbsp. corn syrup. Using bubble wands (or straws or a funnel), compete to blow the biggest bubble. Then, encourage him to experiment by changing the ingredient amounts—can he make even bigger bubbles?

Book picks

▣ Your youngster can count and compare stacks of pancakes in *Sometimes We Do* (Omowale Moses).

▣ Berries ... fish ... what do brown bears eat in April? Follow along in *Eat Like a Bear* (April Pulley Sayre) to find out!

Just for fun

Q: If you had 13 apples, 12 grapes, 3 pineapples, and 3 strawberries, what would you have?

A: A delicious fruit salad.



A daily dose of geometry

When are two triangles not two triangles? When they're combined to form a square! Encourage your youngster to explore geometry by playing with—and even eating—shapes.

Make stamps

Help your child cut dry dish sponges into geometric shapes like a square, rectangle, triangle, and circle. He can dip the stamps into a bowl of paint and stamp them on paper. Give him challenges like “Make a square using only the triangle stamp” and “Stamp a rectangle without using the rectangle stamp.”

Draw a town

Roads often intersect in ways that create geometric shapes. Suggest that your child pretend he's the mayor of “Shapesville” and plan his own roads. He could draw a town square in the center of a poster board. Then, he can make crisscrossing streets leading from the square by tracing along both edges of a ruler. When he's finished, encourage him to



drive a toy truck along the streets and name the shapes they form.

Snack on shapes

Has your youngster ever noticed that the parts of a sandwich are shapes, too? If you show him slices of bread and cheese, he'll say they look like squares. Bologna and pickle slices are circles. Build a sandwich, cut it in half diagonally, and talk about how yummy your triangles are. *Idea:* Ask your child to find more food shapes in the fridge and pantry. 🐛

Investigate earthworms

April showers bring May flowers—and earthworms. After the next rainfall, head outside with your child to look for earthworms and dig into science.

Appearance. Together, look closely at an earthworm. Your youngster will see lines dividing its body into segments. Have her count the segments. Can she spot its mouth? Does it have legs?

Movement. Let your child watch the worm move. She will notice that it alternates getting longer and shorter. That's because muscles in its body segments squeeze and release, helping it move with no legs. Now encourage her to move like a worm. She'll laugh out loud if you try, too! 🐛



Counting money

Whether your youngster is just learning to count coins or can combine coins to make different values, these activities will sharpen her money skills.

Nickel and dime towers. Your child could use what she knows about counting by 5s and 10s to count nickels and dimes. Suggest that she make a tower of each type of coin, with each tower worth \$1. Help her count



as she stacks each nickel (“5, 10, 15, 20 ...”) and dime (“10, 20, 30, 40 ...”), all the way to 100. Ask her which tower is taller, and why. (Nickels are worth less, so it takes more of them to equal \$1! She might also say nickels are thicker.)

Coupon matching. Give your youngster coupons that come in the mail or ones you’ve saved. Have her find coins that equal the amount on each one. If a coupon is for 25 cents off, she could get 1 quarter. Now challenge her to show the same amount in different ways (perhaps 5 pennies and 2 dimes or 3 nickels and 1 dime). Next, mix things up and give her a few coins. Can she find a coupon that matches that amount? 🦋

MATH CORNER

Sleepy-time math



Bedtime isn’t just for stories—winding down with math is fun and educational, too. Here are clever ways to weave in math as your child settles down for the night:

- Read aloud to your youngster, and encourage her to find math in the words or pictures. She might spot number words like *first* or *seven*, or numerals like 10 or 12. Or maybe she will count the animals or people on a page.



- Close your eyes and count how many different sounds you hear. Maybe your child hears a truck rumbling by (1), the buzzing of cicadas (2), a car horn beeping (3), and soft music playing (4).

- Make up story problems together about your day. Your youngster might say, “In our one-on-one basketball game, I got 21 points and my brother got 19. How many points did we get in all?” (Answer: 40, because $21 + 19 = 40$.) 🦋

OUR PURPOSE

To provide busy parents with practical ways to promote their children’s math and science skills.

Resources for Educators,
a division of CCH Incorporated
128 N. Royal Avenue • Front Royal, VA 22630
800-394-5052 • rfeustomer@wolterskluwer.com
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PARENT TO PARENT

Strengthen fine motor skills

My son Keenan goes to occupational therapy for extra help with his fine motor skills. Recently, his OT mentioned that these skills are important not only for writing, but for math, too. She said that’s because Keenan needs to form numbers, count small objects, and measure things.

A home, we’ve been trying fun math activities the therapist suggested. For example, Keenan decorated a water bottle to look like an alligator. Then, he “fed” the gator by using a clothespin to pick up cotton balls, counting as he put each one in its “mouth.”

Keenan also makes up his own “OT activities.” The other day, he rolled play dough into “snakes” and used them to form the numbers 1–10. I look forward to seeing what he comes up with next—and to watching his fine motor skills continue to improve. 🦋



SCIENCE LAB

Cave crystals

With this demonstration, your youngster will discover how evaporation helps rock formations “grow” in caves.

You’ll need: measuring cup, saucepan, water, 2 jars, baking soda, wooden spoon, yarn, ruler, scissors, 2 paper clips

Here’s how: Boil 2 cups water while your child sets out the jars. Pour 1 cup water into each jar, and have him carefully stir in $\frac{1}{2}$ cup baking soda until dissolved.



Next, help him cut a 12-inch piece of yarn, attach a paper clip to each end, and place one end inside each jar. Let this sit overnight.

What happens? Baking soda crystallizes on the yarn to form “rocks.”

Why? As water evaporates (turns into a gas), it leaves behind the baking soda. In caves, mineral-rich water dripping from ceilings and walls evaporates and leaves behind minerals that harden into rock. 🦋