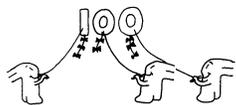


Math+Science Connection

Beginning Edition

Building Excitement and Success for Young Children

February 2015



TOOLS & TIDBITS

Bit by bit

Your youngster could experiment with

capacity—the amount something can hold—by filling measuring cups with water. In the kitchen sink or in the bathtub, have her see how many $\frac{1}{4}$ cups of water will fit in $\frac{1}{2}$ cup and how many $\frac{1}{2}$ cups will fit in 1 cup.



Check the weather

Encourage your child to monitor the weather. Give him a thermometer to hang outside so he can report the temperature each morning and evening. Also, let him put a jar outside to collect rain or snow. When the precipitation ends, help him use a ruler to measure the amount that fell.

Web picks

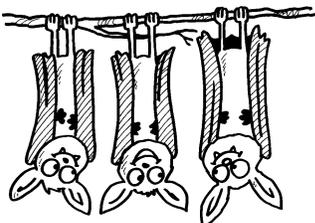
☞ Play Jet Ski Addition, Minus Mission, and more at arcademics.com, a fun combination of arcade games and academics.

☞ Your child can be a “citizen scientist.” The website projectsquirrel.org invites people of any age to look around for squirrels and submit their observations.

Just for fun

Q: Why don't bats want to live alone?

A: They like to hang with their friends.



Celebrating 100

Right about now, your youngster may be getting ready to celebrate his 100th day of the school year. It's fun to celebrate the number 100 at home, too! Try these activities:

- Wear costumes. Your child could draw 100 baseballs on an old white T-shirt or make a 100 mask with holes for his eyes to peek out of the zeroes.
- Have party snacks that add up to 100. Let your youngster put together a trail mix with almonds, raisins, pumpkin seeds, and chocolate chips—25 each.
- Ask your child to write “100” on a paper bag for each family member. Then, they should drop 100 of something in their bags and give clues for the others to guess what's inside. *Examples:* mini marshmallows, cotton balls, pennies.
- Get a tape measure, ruler, or yardstick. Help your youngster find an item that is 100 inches long and another object that is 100 cm long.



- Together, make an album with 100 family photos or 100 stickers. Put 10 pictures or stickers on each page, and let your child practice skip counting to 100 by 10s.
- Be active with 100. Start at the same spot, and walk 100 steps—where does each person wind up? Do 100 jumping jacks, sit-ups, or toe-touches. Or see how many times you can bounce a ball or hop on one foot in 100 seconds.
- Finally, get a calendar, and figure out when it will be 100 days from now. Then, celebrate the number 200! 🐛

Animal habitats

Use this project to help your child learn about where animals make their homes.

1. Create. Have your youngster divide a large sheet of paper or a poster board into six sections. Help her label and decorate each one for a different animal habitat: ocean, rain forest, desert, polar, grasslands, wetlands.

2. Record. As you read books, watch movies, or visit museums or zoos, she can spot where animals live. Then, she could draw their pictures and write their names in the correct section. *Tip:* Watch an animal video with the sound off so she can focus on the scenes and sketch on her paper.

3. Post. Hang up her poster, and she'll have her own guide to animal habitats. 🐛



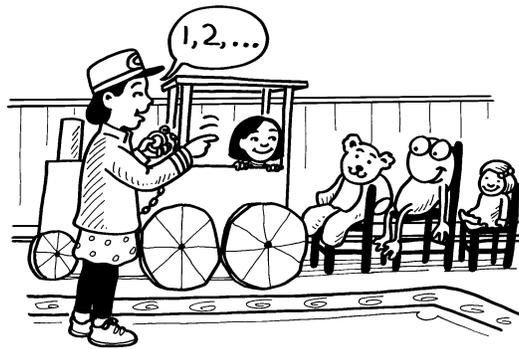
Activities to “count on”

When your youngster adds one group of objects to another, it’s easier to “count on,” or start from the last number and continue counting. Here are ways to practice.

Tally my name

Have your child print her name and count the letters by writing a number below each letter. For example:

M i a
1 2 3



Then, on a separate piece of paper, she should write her middle name and continue counting:

L a u r e n
4 5 6 7 8 9

Finally, she could write her last name on another paper and count on again.

Show her that the final number is the total number of letters in her whole name.

Take the train

As “conductor,” your youngster can count the passengers (toy people and animals) that board her imaginary train. Say 2 passengers get on at the first station (1, 2). Then, when 4 more board, she should start from 2 and continue counting (3, 4, 5, 6).

Help your youngster use counting on to do math in her head. For instance, if she’s boarding another 3 passengers, she should keep 6 in her head and count on 3 more to get the answer (9 passengers).

MATH CORNER

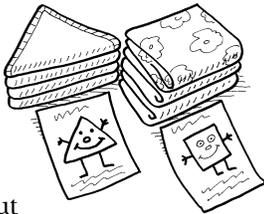
Circles, rectangles, triangles

These twists on geometry will get your child thinking about what shapes look like.

Write a story.

Ask your youngster to turn shapes into characters and write stories about them—using their attributes. He might make up a tale about Cindy the Circle who goes round and round on a carousel and can’t get off. Or Stan the Square may live in the city of Four Corners.

Tip: Have him cut the shape from construction paper and glue it on paper to illustrate his story.



Fold laundry. Take a clean load of laundry out of the dryer, and see how many squares, rectangles, or triangles your child can make with the washcloths, towels, or clothes. Let him sort the folded laundry into piles by shape. Then, set a timer and challenge him to put away all the squares (or triangles) before the buzzer goes off.

Q & A Creative tinkering

Q: My daughter loves taking things apart. Will this help with the “STEM skills” I’ve read about?

A: Yes! STEM stands for science, technology, engineering, and math—and schools are focusing more and more on these skills. Taking things apart can help your daughter learn how things work and also encourage her to make her own inventions.

Try this: When toys or household items break and can’t be fixed, set them aside in a cardboard box or cabinet. You could also add items that outlive their usefulness, such as a crib mobile or a clock radio. Make the objects safe by removing electric cords, leaky batteries, or sharp edges.

Show her how to safely use tools like a screwdriver, pliers, and a wrench. You might check out library picture books on tools or on simple machines. Then, as she tinkers, ask what she thinks each part does. Can she put the item back together—without having any leftover pieces?



SCIENCE LAB

Can you hear me?



A string telephone lets your youngster learn about sound waves.

You’ll need: 2 paper cups, pencil, long piece of string, tape

Here’s how: Help your child punch holes in each cup’s bottom, thread the string through each hole, and tape it down. Holding one cup each, he and a friend can slowly walk apart until the string is taut. Then, one person should speak into his cup, while the other holds



his cup over his ear and listens. Next, they could put the cups down and talk at the same volume. Finally, they should use the cups again, but walk closer so the string is loose.

What happens? They will hear best through the cups and tight string.

Why? Voices vibrate the air inside the cup. This causes the bottom of the cup to vibrate and creates sound waves that are carried along the string to the other cup.

OUR PURPOSE

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

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www.rfeonline.com
ISSN 1942-910X