Beginning Edition

Math+Science Connection

Building Excitement and Success for Young Children

November 2012

Woodrow Elementary School
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TOOLS & TIDBITS

Activity cards

Write the numbers 1–10 on separate slips of paper. Take turns quickly flashing a slip and making up an activity for the other person to do. *Examples:* "Jog in place until you count to this number." "Do this many forward rolls." Your youngster will practice reading numerals and counting—and get some exercise.

Underwater life

Make an "underwater viewer," and visit a nearby creek to let your child see what's happening under the surface. First, cut the top and bottom from a milk carton. Then, have her tape plastic wrap tightly over one end. She can put the plastic-wrapped end in the creek and look through it to view plants and fish. *Note:* Always watch your youngster closely around water.

Book picks

Each Orange Had 8 Slices (Paul Giganti, Jr.) poses fun math puzzles for children in words and pictures.

Let your youngster explore how the human body works in *Why I Sneeze, Shiver, Hiccup, and Yawn* (Melvin Berger).

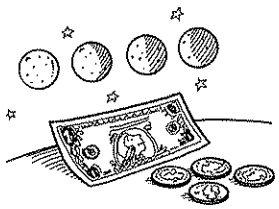
Worth quoting

"Nothing is so contagious as enthusiasm." *Samuel Taylor Coleridge*

Just for fun

Q: How is the moon like a dollar?

A: They both have four quarters.



Even and odd

Identifying even and odd numbers will help your child with everything from understanding numbers and patterns to getting ready for division. Here are simple ways to introduce the concepts.

Match the pairs

Even numbers can be broken into pairs, with nothing left over. Play a finger game to show your youngster how this works. Ask her to hold up 3 fingers on each hand and count the total (6). Then, have her match up her fingers, one by one. Since each finger has a partner, 6 is an even number. Next, tell her to hold up 2 fingers and 1 finger, count the total (3), and try to match them. (One finger won't have a partner, so 3 is odd.)

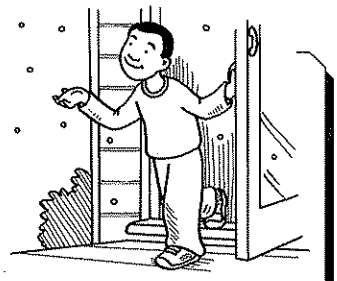
Divide in half

Let your child count household objects, such as spoons in your silverware drawer or books on a coffee table. Is the number even or odd? To check, she can divide the items into two groups, placing them one at a time into separate piles. Have her count the number of items in each group. If the groups are equal, the number is even. If not, it's odd.

Run to the number

Give your youngster practice in recognizing even and odd numerals. Help her write numbers on sticky notes (making sure she includes both even and odd numbers). Then, in your backyard or at a park, place the notes randomly on objects (trees, fire hydrant, side of house). Take turns calling "even" or "odd," and then each of you run to that type of number. Who can find one first? Ask your child to explain how she knows the number is even or odd ("I can't divide it into two equal groups, so it's odd").

Tracking the weather



Every day of the year, a science lesson is just outside your front door. Let your youngster explore weather patterns and work on gathering data by keeping his own weather chart.

Have him draw a symbol on each day's calendar square showing the weather. He might use a sun for a sunny day, a cloud for a cloudy day, or snowflakes for snow. Then, he can make a tally sheet by drawing all the symbols on a piece of paper and adding a tally mark next to each symbol when he uses it on the calendar.

At the end of the week, he can compute the results. Were there more cloudy days or sunny days? Suggest that he keep his tally sheets so he can compare the results from one week to the next.

How many is that?

Turn addition practice into fun with creative activities like these.

Play-dough addition. On separate index cards, write addition problems. Then, give your youngster cookie cutters and play dough to solve the problems. For 2 + 3, he might make 2 cookie-cutter dinosaurs and 3 cookie-cutter hearts. To add, he can count the shapes and say, "2 + 3 = 5." Now let him give you a few problems to solve with play dough!

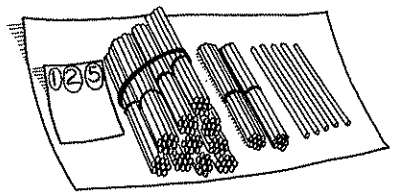
Coloring game. On a piece of paper, have your child draw a large outline of a football (or another simple object). He should draw lines to divide it into 11 sections and number them 2–12. Give each player a different color crayon. Take turns rolling two dice and writing an addition problem (roll 3 and 6, and write 3 + 6 = __). Then, color in the strip with the answer (9). Continue playing until the football is colored in. (If a sum is already colored, it's the next person's turn.) The person with the most strips wins.

MATH CORNER Place-value bundles

How do you make the number 125? Your youngster can discover the answer with these steps:

1. Gather straws, rubber bands, pencil, paper, and crayons.

2. Have your youngster write 125 on the paper. Circle the 5, and ask her to count out that many straws. Those are for the 5 ones in 125.



3. With a different color crayon, circle the 2. She can use rubber bands to make 2 bundles of 10 straws each for the 2 tens in 125.

4. Finally, circle the 1 in the hundreds place of 125. Together, make 10 bundles of 10 straws each and bundle them together to equal 100.

5. Let her lay out her straws left to right (10 bundles in the hundreds place, 2 bundles in the tens place, and 5 loose straws in the ones place). Now she can read her number out loud: one hundred twenty-five, or 125.

Note: For a younger child, try this with a two-digit number like 25.

OUR PURPOSE

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

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a division of CCH Incorporated
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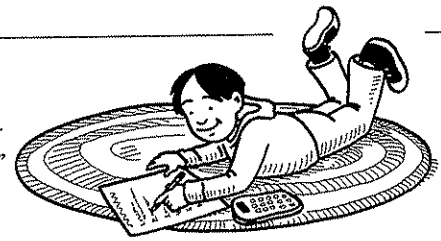
www.rfeonline.com
ISSN 1942-910X

Q&A Using calculators



Q: *Should I let my son use a calculator for his homework? He says "everyone" does, and he wants to use one, too.*

A: This is a tricky one. Your youngster needs to know how to compute basic facts on his own. But calculators, computers, and other technologies are a fact of life today. Try for the best of both worlds.

Give your child regular practice in doing math in his head by posing questions. ("This recipe calls for four chicken legs, and I only have two. How many more do I need?") At other times, let him use a calculator to discover number patterns on his own. For instance, he could punch in 2 and keep adding 2.

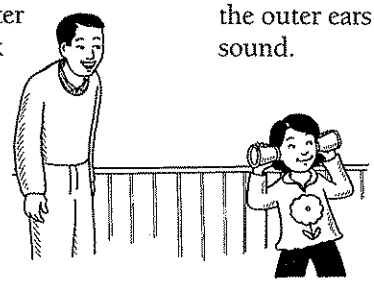
When he's doing math homework, put the calculator away (unless the directions specify using one), and have him do the work with pencil and paper. Then, he could check his answers with a calculator. He'll get practice using the device, but it won't be doing the work for him!

SCIENCE LAB Build better ears

Have your child look at her ears in a mirror. Why are they shaped that way? Then, try this experiment together to find out.

Materials: 2 paper cups (8 oz.), scissors

Here's how: Help her cut the bottoms from the paper cups, and set aside. Stand at opposite ends of a room, with your youngster closing her eyes, and ask her to raise her hand when she hears you speak. Whisper a few words ("I love you") very softly. Keep repeating the words, raising your voice each time, until she hears you. Then, have her cup her hands behind her ears, and do it again. Finally, let her hold the paper cups around her ears, and repeat the experiment.



What happens? She can hear softer sounds with each "extension" of her ears.

Why? Outer ears collect sounds and guide them into the inner ear. The larger the outer ears, the better they gather sound.

Idea: Together, look online or in books at the ears of various animals. How does your child think the shapes affect the way they hear?