Intermediate Edition

Math+Science Connection

Building Understanding and Excitement for Children

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INFO BITS

Open-door angles

Doors in your house are the perfect place for hands-on practice with angles. Take turns opening or closing a door and asking, "Acute, right, or obtuse?" Partially open a door, and it's an acute angle. Open it straight out, and it's a right angle. Open it wider, and it's obtuse.

Habitat for rent

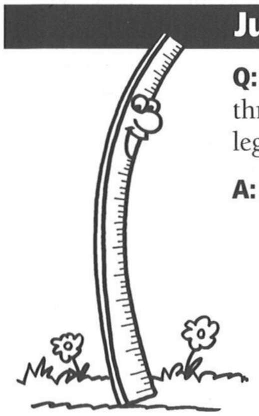
Help your child think about what animals need to survive (shelter, food, water). Then, have her choose an animal (monkey) and write a classified ad for a home that will meet its needs. *Example:* "Tall tree in a tropical rain forest. Large river nearby for drinking. Plenty of leaves, fruit, and insects to eat."

Book picks

📕 *The Man Who Counted: A Collection of Mathematical Adventures* (Malba Tahan) combines an adventure story with interesting math puzzles.

📕 Learning about the solar system is fun when planets tell the story themselves. Dan Green's *Astronomy: Out of This World!* contains fascinating facts and details along with cartoon illustrations your youngster is sure to love.

Just for fun



Q: What has three feet but no legs or arms?

A: A yard.

Fractions of fun

Understanding fractions is much easier when your child can visualize them. Here are ideas to help her see—and use—fractions.

Keep a diary

Show your youngster that fractions are a part of everyday life. For a week, have her record and illustrate each one she notices. For instance, she might write, "We had a half day of school today," or "Mom asked for 1$\frac{1}{3}$ pounds of turkey at the store." How many examples can she find and draw?

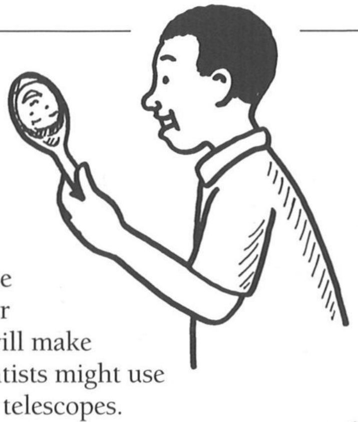
Play a game

Have each player cut a sheet of construction paper into six horizontal strips. She should leave the first one whole and then cut the second one in half (fold it, and cut along the fold), and the others into thirds, fourths, sixths, and eighths. With bits of masking tape, label a die: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$, and "wild." To play, roll the die, and lay the matching piece of paper on your whole strip (for "wild," choose any piece). The goal is to be the first one to fill your strip without overlapping any pieces (*example:* $\frac{1}{2}+\frac{1}{4}+\frac{1}{4}=1$ whole strip).

Put in order

Together, make a set of fraction cards, with one fraction per index card ($\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, 1$\frac{1}{4}$, 1$\frac{1}{2}$, 1$\frac{3}{4}$, 2). Shuffle the cards, and see how quickly your child can put them in order. Then, while she closes her eyes, lay the cards in order but leave out a few. Give her the missing cards, and have her put them where they go. ⬢

Look at me!



Help your youngster learn about the science of *optics* with this mealtime activity.

Have him look at himself in a clean spoon. What happens if he looks in the bowl of the spoon? (He's upside down.) What happens on the other side? (He's right side up.)

Next, have him bring his finger toward the spoon and watch what happens on each side. The bowl (the *concave* side) will magnify his finger, or make it look larger. The back (the *convex* side) will make his finger look smaller. Ask your child how scientists might use this information to make eyeglasses, cameras, or telescopes.

Tip: He can remember which side is which by thinking of concave as "caves in." ⬢