# **Multiply and divide**

Learning to multiply and divide can be more about thinking than memorizing. Strategies like these can help your child practice.

Make it fun. Practice using toys or food. If your child collects toy animals, you might ask, "How many legs do 4 horses have?" He can "skip count" the legs by 4s (4, 8, 12, 16) to see that  $4 \times 4 = 16$ . If he has 17 pretzels and wants to give 3 friends an equal amount, he can "deal them out."

He'll see that each person gets 5, and there are 2 left over.

 $(17 \div 3 = 5, remainder 2)$ 



Use what you know. Encourage your youngster to look for clues to help him solve problems. For  $8 \times 7$ , he could consider other facts he knows, "I know 4 groups of 7 =28. I need 8 groups, so I can double that answer. If

28 + 28 = 56, then  $8 \times 7 =$ 

56." For 30  $\div$  5, he might say, "I know  $10 \div 5 = 2$ . There are three 10s in 30, and 3 x 2 = 6. So  $30 \div 5$  must be 6."

### **Show interest** in math

**Q**: I've never felt comfortable with math. How should I talk to my children about what they're learning in math class?

A: Try to show enthusiasm for what your youngsters are doing in math. You might ask them each day at dinner



or homework time what they studied in math that day. Let them explain the concepts they're working on, and follow up with questions. For instance, if they're learning about decimals, you could ask how decimal points are used in money (they separate the parts of a dollar from the whole dollar).

Then, when your children finish their homework, have them show you how they solved a few problems. As they explain their methods to you, they'll be reinforcing their own skills. And they'll be proud to be teaching you something!

### PURPOSE

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

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## **Measuring volume**

Which popcorn container does your youngster want at the movies? Have her do this activity to find out!

Ask her to roll two index cards into cylinders -- one vertically and one horizontally—so the edges just touch, and tape them closed. One cylinder will be tall and skinny, and the other one short and wide.

Then, have her predict how many (same-size) marbles each tube could hold. Will the totals be the same? To test her prediction, let her fill each tube with marbles and count. How can she explain the result?

Your child may be surprised to find the shorter, wider cylinder holds more. That's because the radius of a cylinder has a greater effect on its volume—the amount of space inside a 3-D object — than its height does. So when she's ordering popcorn, she might prefer the shorter, wider cylinder to the taller, skinnier one!



## Where did the green go?

This experiment uncovers a surprising fact: When leaves change color in the fall, it's really the green going away and the colors that were there all along coming out.

You'll need: green leaves, small jar, rubbing alcohol, wooden spoon, foil, small bowl, water. coffee filter, scissors

Here's how: Have your child tear the leaves into the jar, cover with alcohol, and mash with the spoon. Cover with foil, and place the jar in a bowl

filled with hot water. After 30 minutes. she should cut a strip from the filter, remove the foil, and dangle the filter into the alcohol. Let it sit for an hour.

What happens? Lines of different colors will travel up the filter.

Why? Green leaf color comes from the chemical chlorophyll, which helps make food for trees in spring and summer. In fall, chlorophyll is no longer produced, so the hidden colors (yellow, orange, red) can be seen. 😭

