

Fractured Fractions

Grades K-3

What you'll need

Clear container, masking tape, marker, measuring cups ($\frac{1}{2}$, $\frac{1}{3}$, or $\frac{1}{4}$ cup measure), uncooked rice or popcorn kernels, and water

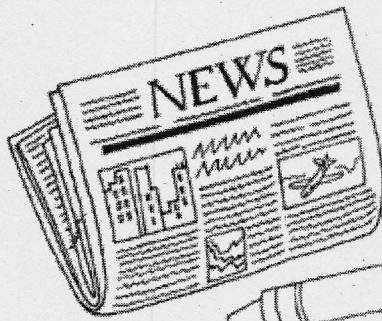
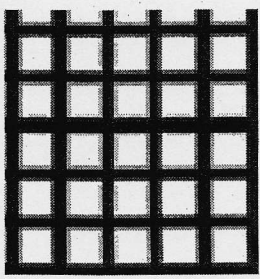
What to do

1. Have your child stick a piece of masking tape straight up one side of the clear container from the bottom to the top.
2. For younger children, use a $\frac{1}{2}$ cup measure. For older children, use a $\frac{1}{3}$ or $\frac{1}{4}$ cup measure. Choose the unit of measure and fill the measuring cup. Then let your child pour the substance from the measuring cup into the clear container. Continue to pour the same amount of the substance into the container.
3. As each equal amount of the substance is poured, mark the level on the container by drawing a line on the tape. Write the cup size or appropriate fraction on each line. The fraction for one-third cup would be $\frac{1}{3}$.
4. Follow this procedure until the container is full and the tape is marked in increments to the top of the container.
5. Fill the container again and again using different measures each time. Ask your child "thinking" questions.
 - How many whole cups do you think this container will hold? How many $\frac{1}{2}$ cups, $\frac{1}{3}$ cups, or $\frac{1}{4}$ cups do you think the container will hold?
 - How many $\frac{1}{2}$ cups equal a cup?
 - How many $\frac{1}{4}$ cups equal $\frac{1}{2}$ cup? A cup?
 - How many $\frac{1}{4}$ cups equal $\frac{3}{4}$ cup?

Parent Pointer



This hands-on activity explores whole numbers and fractions by using measurements your children can see. Your children also will learn to guess or estimate quantities.



In the News

Grades K-2

you'll need
Newspaper, scissors, pencil or crayon, glue,
graph paper

What
and

What to do

1. **Newspaper numbers.** Help your child look for numbers 1 to 100 in the newspaper. Cut the numbers out and glue them in numerical order onto a large piece of paper. For children who cannot count to 100 or recognize numbers that large, only collect up to the number they do know. Have your child say the numbers to you and practice counting up to that number.

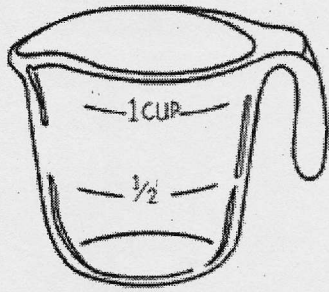
Or

2. Collect only numbers within a certain range, like the numbers between 20 and 30. Arrange the numbers on a chart, grouping all the numbers with 2s in them, all the numbers with 5s, and so on.
3. **Counting book.** Cut out pictures from the newspaper and use them to make a counting book. Page 1 will have one thing on it, page 2 will have 2 things that are alike, page 3 will have 3 things that are alike, and so on. All the things on the each page have to be the same. At the bottom of each page, write the number of items on the page and the word for the item. Have your child tell you a story about what is on the page.

Parent Pointer



This newspaper activity helps children read and understand numbers and charts.



Fill It Up Grades K-2

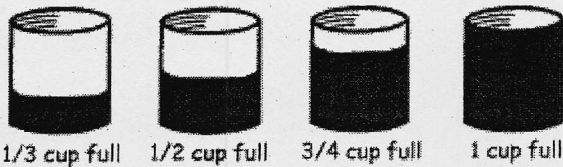
What you'll need
A measuring cup, 4 glasses of equal

size, and water

What to do

1. Pour cup, 1/2 glass. other. levels
2. Ask your child questions to encourage comparison, estimation, and thinking about measurement. Which glass has more water? Which has less? How many glasses of water do you estimate it will take to fill the container?
3. Pour more water into one of the glasses to make it equal to the amount of water in another glass. Move the glasses around so that the glasses that have the same amount of water are not next to each other. Ask your child: Which glasses do you think have the same amount of water?
4. As your child begins to understand more, do activities using different-shaped containers that hold the same amount of a substance (water, rice, and popcorn kernels). This helps your child see comparisons, as well as the various capacities of different-sized and -shaped containers.

water at different levels (1/3 cup, 3/4 cup and 1 cup) in each
Put the glasses next to each
Ask your child: Are all the water the same or different?



1/3 cup full

1/2 cup full

3/4 cup full

1 cup full

Parent Pointer



Filling empty containers provides opportunities to explore comparisons, measurement, volume, estimation, and geometry.

Check It Out

Grades 2-3

What you'll need
Money

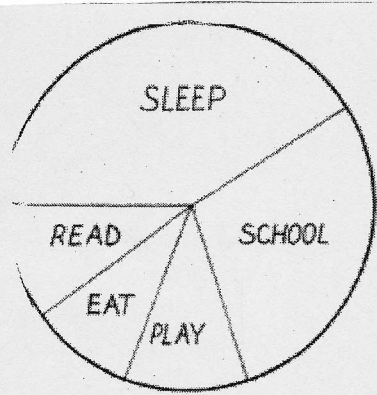
What to do

1. Have your child estimate the total price of items in a shopping cart. An easy way to estimate totals is to assign an average price to each item. If you have 10 items and the average price for each item is \$2, the total price estimate would be about \$20.
2. Using the estimated total, ask your child: If I have 10 onedollar bills, how many ones will I have to give the clerk? If I have a 20-dollar bill, how much change should I receive? If I get coins back, what coins will I get?
3. At the checkout counter, what is the actual cost? How does this compare to your estimate? When you pay for the items, will you get change back?
4. Count the change with your child to make sure the change is correct.

Parent Pointer



Help your child use mental math by estimating cost. Then have your child participate in the checkout process where the total is added up, money is exchanged, and change is returned.



Tracking Time

Grades 2-5

What you'll need

Clock or watch, newspaper, blank paper, and graph paper (can be hand-drawn)

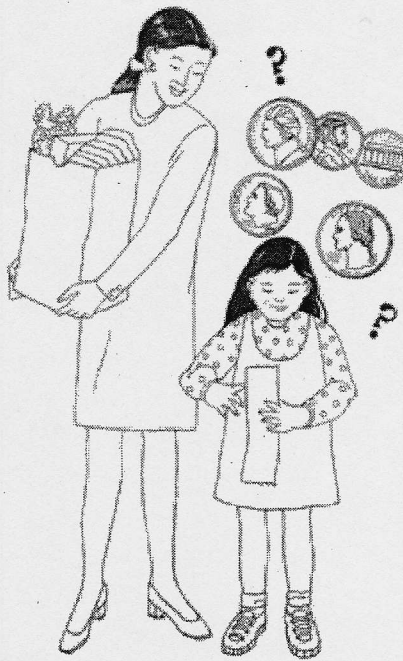
What to do

1. Together with your child, keep track of the time he or she spends watching television as well as doing homework. Make a table listing the 7 days of 1 week. Keep two columns, one for television and one for homework. At the end of the week, see if together you can make a graph comparing the two different activity columns.
2. While watching television, make a chart showing how much time in every hour is used for commercials compared to how much time is used for the actual show. Do this for every half-hour of television you watch. Then make a bar or pie chart showing the two amounts. Time the minutes carefully.
3. Together with your child, keep track of how he or she spends time in one 24-hour period: time spent sleeping, eating, playing, reading, and going to school. Measure a strip of paper that is 24 inches long. Let each inch represent 1 hour. Color in the number of hours for each activity, using a different color for each activity. When finished, make the strip into a circle and place it on a blank piece of paper. Trace around the circle. Then make lines from the center of the circle to the end of each color. Your child has just made a circle (pie) chart of how he or she spends 24 hours. Compare this with how other people in your family spend their time.

Parent Pointer



Statistics includes collecting information, analyzing it, and describing or presenting the findings in an organized way.



Money's Worth

Grades 1-3

What you'll need
Coins, grocery store
coupons, and a
pencil

What to do

1. **Coin clues.** Ask your child to change in his or her hand showing what it is. Start with 25 cents or less (for first-cans can start with pennies and your child to tell you how much how many coins there are. coins are being held. For example, "I have 17 cents and 5 coins. What coins do I have?" (3 nickels and 2 pennies).
2. **Clip and save.** Cut out grocery store coupons and tell how much money is saved with coins. For example, if you save 20 cents on detergent, say 2 dimes. Ask your child what could be purchased using the savings from the coupon. A pack of gum? A pencil? How much money could be saved with 3, 4, or 5 coupons? How could that money be counted out in coins and bills? What could be purchased with those savings? A pack of notebook paper? A magazine? How much money could be saved with coupons for a week's worth of groceries? How would that money be counted out? What could be purchased with those savings? A book? A movie ticket? What percentage of the original price is the coupon worth?
3. **Count the ways.** How many ways can you make 10 cents, 25 cents, 30 cents, 40 cents, or 50 cents? You can help your child add the coins in various ways to get different answers.
4. Try playing the coin games with coins from another country.

gather some
without
amounts of
graders, you
nickels). Ask
money and
Guess which

Parent Pointer

! Coin games help children to learn the value of coins. They also teach counting, addition, subtraction, and multiplication. Coupons can help teach children money management, as well as subtraction and percentages.