



Math at the Market!

Math Activities For Children 2nd through 3rd Grade

The grocery store is one of the best examples of a place where math is real.

Since trips to the grocery usually affect everyone in the family, the following activities include various levels of difficulty within the activity.

for grades 2 and 3

All of these activities can take place over many visits to the store.

Get Ready
Getting ready to go shopping can help parents and children share their thinking strategies about math with one another.

What you'll need

Paper

Pencil

Coupons (if you use them)

What to do:

1 Involve the family in making a list.
1 List each item and mark with checks or tallies to indicate the number needed.

2 Look at the price of an item you bought last week and intend to buy this week.

How much did it cost last week?

How much does it cost this week?

Do you want to

Pay this week's price?

Wait until the price comes down?

Or, stock up if it is on sale?

3 Involve the group in deciding how much milk or juice will be needed for a week. You might decide to estimate by cups, explaining that 4 cups are equal to a quart and 4 quarts are a gallon.

4. If you collect coupons, organize them. Choose the coupons that match the items on the grocery list. Discuss how much money will be saved on various items by using coupons.

Practicing measurement and estimation will help improve your children's ability to predict amounts with accuracy.

A project of The Florida Partnership for Parent Involvement

Center of Excellence ♦ Louis de la Parte Florida Mental Health Institute ♦ Florida's Children's Forum
Home Instruction Program for Preschool Youngsters ♦ Hillsborough County Head Start ♦ Hillsborough County Even Start

○ Scan It

Shopping is a part of life which really necessitates our being mathematically informed to be good consumers.

What you'll need:

Prices

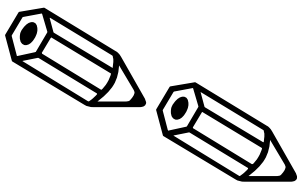
What to do:

1. Notice whether the grocery store has prices on the items or whether the pricing is dependent on scanners.

2. If there are no prices on the items, notice the prices listed on the shelves.

3. Assign each child the job of remembering the price of a few items, particularly those listed on sale.

The ever increasing use of technology in the grocery store puts the burden on you to beware. Your protection lies in having strong mental math skills.



□ Get into Shapes

The grocery store is filled with geometric shapes.

What you'll need

Items at the store

What to do:

1. Show your child the pictures of the shapes on this page (cube, cone, cylinder, rectangular prism, pyramid) before going to the store. This will help to identify them when you get to the store.

2. At the store, ask you child questions to generate interest in the shapes.

Which items are solid? which are flat?

Which shapes have flat sides?

Which have circles for faces? Rectangles?

Do any have points at the top?

3. Point out shapes and talk about their qualities and their use in daily life.

Look to see what shapes stack easily. Why? Try to find some cones. How many can you find?

Look for pyramids.

Determine which solids take up a lot of space and which ones stack well. Discuss why space is important to the grocer and why the grocer cares about what stacks well.

Boxes
Cans

Rolls of toilet paper or paper towels
Ice cream cones and cones that hold flowers, plus produce such as oranges, grapes, and tomatoes are all geometric shapes.

Recognizing these shapes helps children connect math to the real world.

☐ Check Out

The check out counter is where we commonly think about math in the grocery store. It's where the total is added up, the money is exchanged, and the change is returned.

What you'll need:

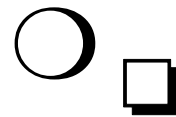
All the items you intend to buy
What to do:

- 1**. Have your child estimate the total
- 2**. Ask, if I have 10 one-dollar bills, how many will I have to give the clerk?

What if I have 20 one-dollar bills? 5?
How much change should I receive?
What coins will I get?

- 3**. Count the change with your child to make sure the change is correct.

One way to make estimating totals easy is to assign an average price to each item. If the average price for each item is \$2 and if you have 10 items, the estimate would be about \$20.



It's in the Bag

Here's some fun estimation to do with bags full of groceries.

What you'll need
Bags of groceries

What to do:

1. Have your child guess how many objects there are in a bag. Ask:

Is it full? Could it hold more? Could it tear if you put more in it? Are there more things in another bag of the same size? Why do some bags hold more or less than others?

2. Estimate the weight of the bag of groceries.

Does it weigh 5 pounds, 10 pounds, or more? How can you check your estimate? Now, compare one bag to another.

Which is lighter or heavier? Why?

This activity exposes children to the experiences of counting items and comparing qualities, as well as to judging spatial relationships and capacity. It shows how to estimate weight by feeling how much the bag weighs, comparing it to a known weight (such as a 5 pound bag of sugar), or weighing it on a scale.

○ Put it Away



Now, the sorting begins as you put away the groceries.

What you'll need:

Your bags of groceries Counter top or

table to group items on

What to do:

1. Find one characteristic that is the same for some of the products. For example, some are boxes and some are cans.

2. Put all the items together that have the same characteristic.

3. Find another way to group these items.

4. Continue sorting, finding as many different ways to group the items as you can.

5. Play "Guess My Rule." In this game, you sort the items and invite your child to guess your rule for sorting them. Then, your child can sort the items, and you can guess the rule.

Sorting helps children develop

For more information contact:

classifying and reasoning skills and the ability to examine data or information.



The Center for Parent Involvement (FCPI) was funded by the U.S. Department of Education; Goals 2000, Educate America Act from 1994-1999. Guided by an advisory board of parents and professionals, the FCPI's goal was to tap the power of parents.

The FCPI gathered information on parent needs, coordinated the information, and created a series of resources organized by theme, including fact sheets for parents and professionals, "Beyond the Basics" resources, and resource identification lists. Many of the resources have been translated into Spanish language versions, and every effort has been made to preserve the meaning and flavor of the original English documents. This series of materials provides a wealth of current information for both parents and providers; the complete set of resources can be obtained in PDF format on the Department of Child and Family Studies Website at www.fmhi.usf.edu/cfs/dares/fcpi. The staff of the FCPI are hopeful that their work will continue to help children get ready to learn for many years to come.

The series' themes include:

- Family Empowerment
- Parent Involvement
- Parenting Support
- School Readiness
- Violence in the Lives of Children
- Transition to Kindergarten

The Center was one component of a project led by Hillsborough County Center of Excellence in collaboration with the Department of Child & Family Studies at USF's de la Parte Institute and the Florida Children's Forum. Other project partners include HIPPIY (Home Instruction Program for Preschool Youngsters), Hillsborough County Head Start and Hillsborough County Even Start. For more information about these projects, call 813.974.4612.

School Readiness Series, Beyond the Basics: Math at the market.

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