

Ready, set, learn

Marlene Barron suggests entertaining activities to stimulate your child's natural interest in mathematics.

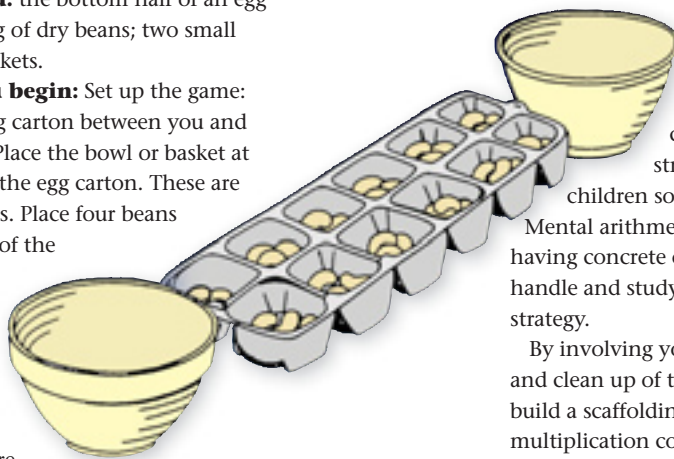
Mancala

This ancient African game comes in beautiful wooden editions available in toy shops, but this homemade version works just as well.

Helps develop: counting, strategizing, basic arithmetic, understanding of numbers, one to one correspondence.

You'll need: the bottom half of an egg carton; a bag of dry beans; two small bowls or baskets.

Before you begin: Set up the game: Place the egg carton between you and your child. Place the bowl or basket at each end of the egg carton. These are the mancalas. Place four beans in each cup of the egg carton. Leave the mancalas empty. The egg cups on your side of the carton are yours; those on your child's side are hers.



1. Rules of the game

Players take turns. On your turn, take all the beans from any one of your cups and "sow" them as follows: place one in the cup to the right of the one you drew from, the next in the next cup to the right, and so on, moving around the board counter clockwise until the beans are gone. Sow beans one by one in your own cups, your mancala and your opponent's cups.

- Don't sow a bean in your opponent's mancala
 - If your last bean is sown in an empty cup, you get the beans in your opponent's cup opposite.
 - You win the beans that are sown in your mancala. Sow beans only from cups, not from the mancala.
2. Continue playing until one player runs out of beans in her cups
- When you run out of beans, your opponent wins all the beans in her cups. They go into her mancala
 - The player with the most beans in her mancala at the end wins.

Follow-up Activity:

Play this game again and again. Involve your child in all parts of the game: setting up, playing and putting away. You'll be surprised how quick both of you get. This really is a game for all ages.

What's happening?

This game has a beautiful simplicity that allows children to really manipulate numbers of objects toward a specific goal. One-to-one correspondence is strongly reinforced as children sow one bean per cup. Mental arithmetic gets a boost from having concrete objects to work with, handle and study. And then there is strategy.

By involving your child in the setup and clean up of this game, you help build a scaffolding for basic multiplication concepts.

Moving Ahead: Up the cup count to five or six beans per cup. This changes the game quite a bit, adds to necessary strategy, makes it take longer, and introduces a new multiplication concept.

Helpful Hint:

Play Mancala with a variety of objects of like size and shape: acorns, seashells, raisins, pennies. This will help your child understand that numbers are constant even when the object being counted changes.

Sock Scale

Each sock holds a mystery object. Let your child close his eyes and feel

Helps develop: concept of weight, making comparisons, making non-standard measurements

You'll need: Two socks; a variety of objects

What to do:

- Have your child close his eyes
- Place an object in each sock. Use objects with obviously

different weights; a tennis ball and an eraser, a pencil and a rock, and so on. Let the objects fall into the sock's toe.

- Have your child hold the top of both socks, one in each hand.
- Ask, "Which is heavier? Which is lighter?"

Follow-up activities

- Work up to using objects that are close in weight
- Have your child load objects into the socks while you decide which is heavier
- Use a scale to measure and compare the weight of objects
- Have your child hold the objects in the palm of his hands instead of the sock

What's happening?

When you have your child weigh things without looking, you encourage him to focus on his basic sense of touch and refine his ability to compare. When you place the objects in the socks instead of his hands and have him close his eyes, he assesses weight, rather than size, texture or anything else.

Your child will more easily understand standard measurements such as grams and pounds if he has already explored non standard measurements.

Moving Ahead: Ask your child to choose two objects from the assortment and predict which will be heaviest. Then compare them using the sock scale. ■

Marlene Barron, PhD, was Head of School at West Side Montessori School in NYC from 1979-2007. She shifted her focus in 2008 to expand her consulting role through Barron International: Montessori Consulting Group.

These activities appear in Marlene's book, *Ready, Set, Count* and are reprinted with kind permission of the publishers, John Wiley & Sons. The *Ready, Set, Learn* series by Marlene Barron for parents is available from www.amazon.com