



Kalah

<p>THE BASICS</p>	<p>THE TOOLBOX</p>	<p>EDUCATION STANDARDS</p>	<p>Problem-Solving Process Standard: Building new knowledge through problem-solving and learning to apply and adapt a variety of appropriate strategies to solve those problems.</p>
<p> Grade Level: 2-12</p>	<ul style="list-style-type: none"> • Empty egg carton • Beans, paper clips, or pasta to use as place markers • Scissors 	<p>SAFETY CONCERNS</p>	<p>Make sure younger children do not put small items in their mouths.</p>
<p> Estimated Time: 20 min.</p>		<p>FOR KIDS WITH DISABILITIES</p>	<p>Mobility-impaired students may need a Kalah board with larger cups and larger markers such as checkers or dominoes.</p>



Educational Objective:

To practice spatial reasoning and logical thinking.

What To Do:

- Assemble the materials and duplicate the activity sheet.

Questions to Ask Students As They Do This Activity:

- What strategies did you find most helpful as you played?
- What is the most critical part of the game?
- What do you need to think about in your end-game strategy?

What's Happening:

- Kalah, a game played in many African countries, is called by different names in different regions of Africa. "OWARE" and "MANKALA," two of its names, mean "to transfer." In Mali, it is called the "game of the universe," and the beans and seeds are used to represent stars.
- Lead the students in a demonstration so they can better understand the rules about moving the beans.
- The strategies at the end of the game are more important than what takes place at the beginning.

WEB SITES

- **Mancala Web 2.0**
<http://imagiware.com/mancala/> (Grades 2-12)
- **African Games Information/Links**
<http://www.myriad-online.com/awalink.htm> (Grades 2-12)

SOFTWARE

- **Logical Journey of the Zoombinis**
Broderbund Software, Inc., 1996.
(Grades 4-8)
- **Carmen Sandiego Math Detective**
The Learning Company, 1998
(Grades 3-9)

READING ROOM

- Edmiston, Margaret. **Fantastic Book of Math Puzzles**. Sterling, 1998.
(Grades 9 and up)
- Griffiths, Rose. **Games**. Gareth Stevens, 1994. (Grades 1-4)

Career Connections

Kalah is a game that uses logical thinking. A mathematician uses logical thinking to solve many kinds of problems.

KALAH ACTIVITY SHEET

Kalah, a game played in many African countries, is called by different names in different regions of Africa. "OWARE" and "MANKALA," two of its names, mean "to transfer." In Mali, it is called the "GAME OF THE UNIVERSE," and the beans and seeds are used to represent stars.

Make the Kalah board:

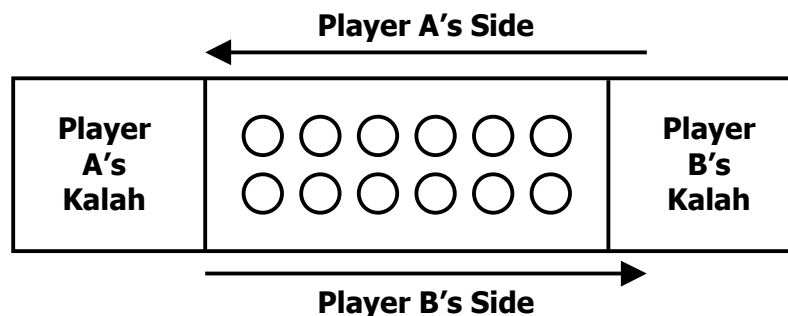
1. Cut the lid off an egg carton. If possible, use an egg carton with a lid with no "pits" or "wells" in it.
2. Cut the lid in half crosswise and fasten one half of it to one end of the carton, and the other half to the other end. These ends form the two kalahs—one for you and one for your opponent.

Getting Ready:

1. Each player sits on one side of the Kalah board.
2. The pits on their side belong to them as does the kalah to their right.
3. Put three beans in each pit and none in either kalah to start the game.
4. Players try to collect as many beans as possible in their kalah.

Play the Game:

1. Each person in turn picks up all the beans in any one of their own six pits and places them one by one in each pit around the board to the right, including their own kalah, and into the opponents pits, but not into the opponent's kalah.
2. Once a bean is in a kalah, it stays there. If a player's last bean lands in the player's own kalah, he or she gets another turn.
3. If a player's last bean lands in an empty pit on that player's side, that player captures all of the opponents beans in the opposite pit and puts them in the player's kalah together with the capturing bean. A capture ends the move.
4. The game ends when all six pits on one side are empty.



Challenge:

What would happen if you put two or five beans in each pit as you started the game?