

# Great Openings

Age:  
5-13

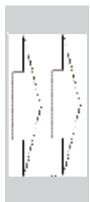
Participants:  
Group, Family, Pair

## Slots

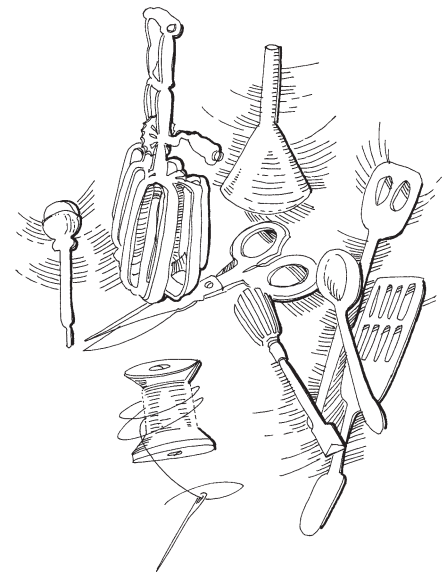
- Collect at least 5 small household items.
- Choose 3 from your collection.
- What is the smallest opening you can cut in a piece of paper so that all 3 items will fit through it?
- Once you've cut your hole, return the 3 items to the collection.
- Give your partners the paper with the opening. Challenge them to find the 3 items you used.

## 35 Sense

- Trace a dime onto an index card. Cut out the circle.
- Without tearing the paper, put a quarter through the dime-size hole.



Although it doesn't seem possible, a quarter will fit through the dime-size hole. Hold the quarter perpendicular to the paper, and gently push the quarter through on edge while bending the card. Bending the card stretches the hole just enough to allow the quarter to pass through.



## Hole In One

- Cut an opening in an index card large enough to fit your head through. It should have 2 closed ends.
- Can you cut an opening large enough to fit over a family member from head to toe?



There is more than one solution to this problem. Here's one way to solve it. Start by folding the index card in half. Next, cut very thin slits in the card as shown below (a), stopping approximately 1/4 inch from the edge. Be careful not to cut all the way through! Then cut open along the folded edge on all the slits (b) except the first and last. Carefully open up your paper "hole" and step through!

