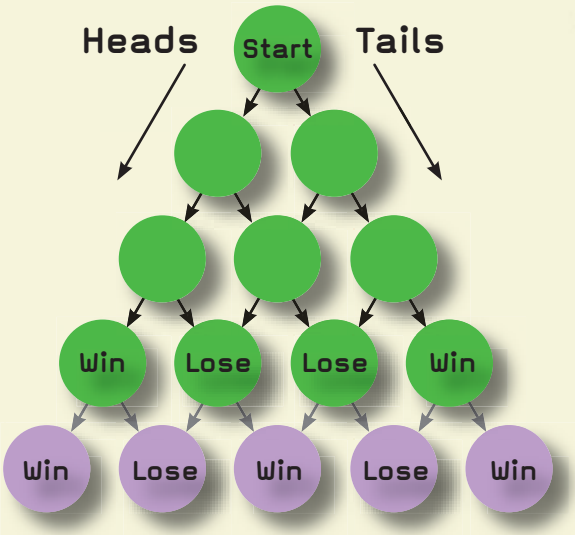
Left to Chance

You need ★ counters ★ a copy of the game board (see copymaster) ★ classmates ★ a coin



Activity

Simon runs the Green Game (the first 4 rows of the game board shown above) at a fund-raising fair. People who win get double their money back.

1. a. With a classmate, take turns to play the Green Game:
   - Put a counter on Start. Toss a coin.
   - If you get heads, move down one space to the left; if you get tails, move down one space to the right.
   - After three tosses, you'll be on a win or a lose space.

   b. Play the Green Game 16 times each, recording your results. How often did you win?

   c. Pool your results with those of other classmates. What do you find?

2. Steve plays Simon's game four times and loses every time. He wonders if the game is fair. What do you think "fair" means? Discuss with your classmate.

3. Simon tells Steve that his Green Game is fair. "After all," he says, "there are equal numbers of win and lose spaces." List all the different pathways to a win and to a loss. Use this information to argue for or against Simon's claim.

4. a. With a classmate, play another 16 games each, this time using the fifth row win or lose spaces. Record your results and note how often each of you won.

   b. List all the different pathways to a win and to a loss. Which game would be better for Simon in terms of raising money?

Focus Comparing experimental results with expectations