

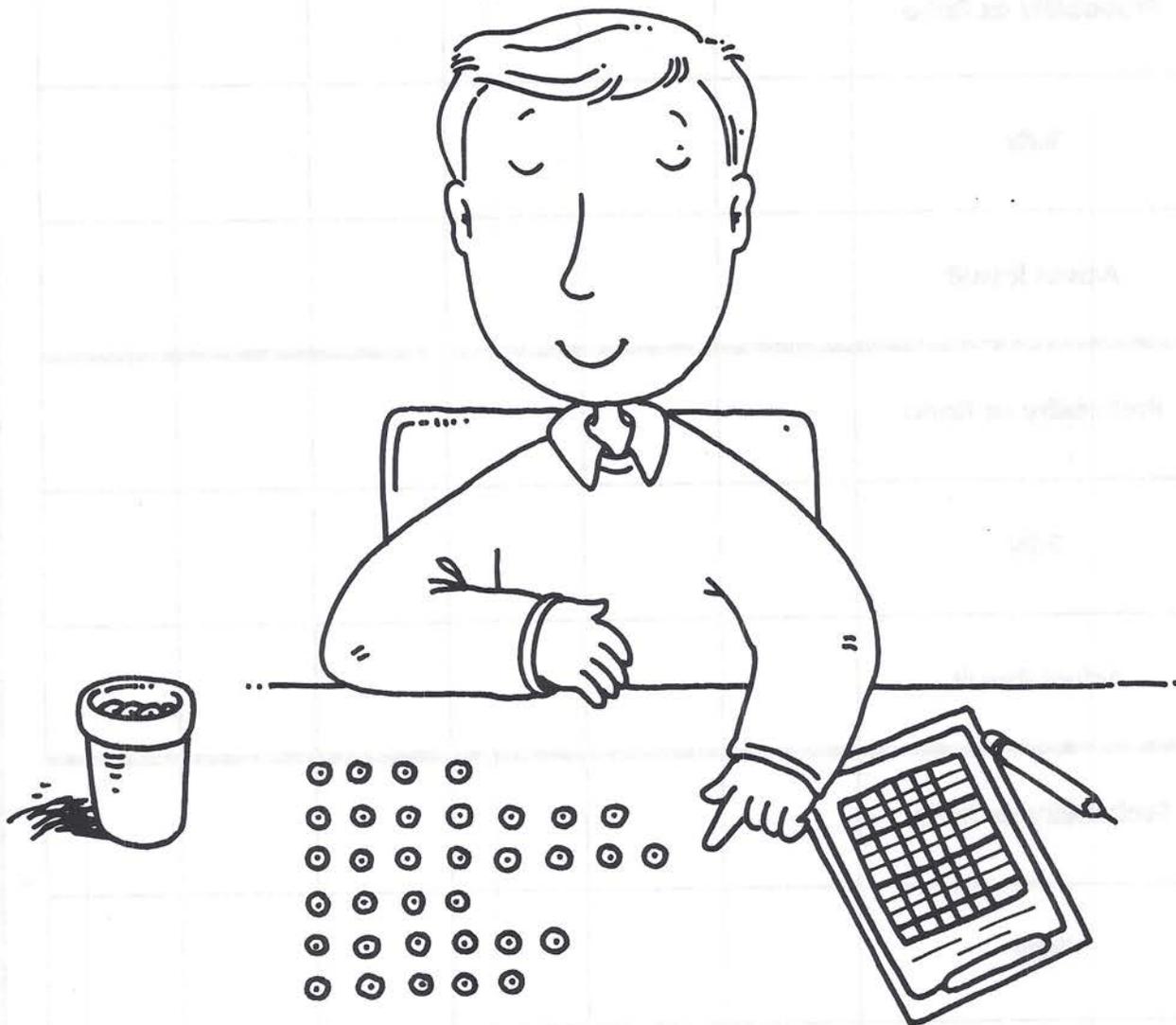
# Loop Abilities

## Materials

- one cup Froot Loops® cereal
- brown paper lunch bag

## Independent Investigation

1. Sort your Froot Loops by color. Place one of each color in a row on your desk.
2. Write the probability for drawing each color out of a paper bag as a ratio on your recording sheet.
3. Place the row of Froot Loops in your paper bag. Without looking, take turns drawing one Froot Loop out of the bag. Record the color of the cereal piece drawn each time. Then, put it back in the bag and shake the bag. Do this 20 times. Record the actual ratio of each color for 20 draws.
4. Take one Froot Loop out of the bag and eat it. Replace it with another Froot Loop of a different color. You should now have the same number of Froot Loops in the bag but some of the ratios will have changed. Record these new ratios.
5. Repeat steps 3 and 4 two more times.
6. Answer the reflection questions in your math journal.

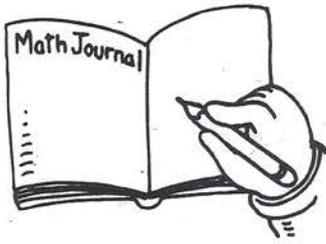


# Loop Abilities

## Recording Sheet

Name \_\_\_\_\_ Date \_\_\_\_\_

	Purple	Yellow	Blue	Green	Orange	Red
Probability as Ratio						
Tally						
Actual Result						
Probability as Ratio						
Tally						
Actual Result						
Probability as Ratio						
Tally						
Actual Result						

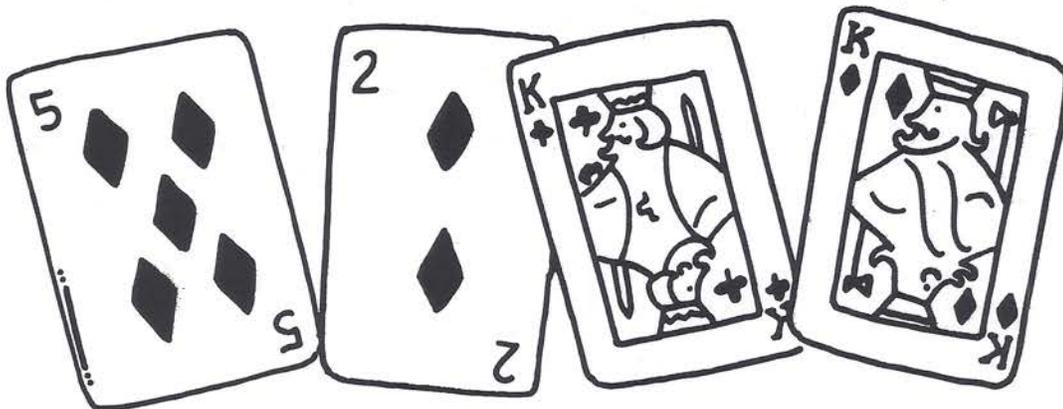


### Reflection Questions for Math Journals

1. How well did your expected ratio match your actual results? Were you surprised? Explain.
2. How did the probabilities change when you ate one of the colors and replaced it with a different color?
3. If you wanted to have the greatest chance of winning a prize drawing, what would you do?

### Side Dishes

- Invite students to choose a number from one to six and calculate the probability of rolling that particular number on one die and two dice. Have them roll one die 25 times and record the results and the actual ratio. Then, have them roll two dice 25 times and compare the results and the ratio.
- Challenge students to calculate the probability of drawing the following from a deck of cards: a red card, a diamond, a king, the king of diamonds.



### Dessert

- Read aloud "P is for Probability" in *G is for Googol* by David Schwartz, which presents an easy-to-understand description of probability. Invite students to predict the outcome of flipping two different coins 100 times and then graph the actual results.
- Have students invite their family to join them in a study of the odds of winning various types of contests, lotteries, or raffles.