Two Colors Game Suggestions

The applet raises several important questions. Math goals of each group of questions are given in parenthesis.

Exploration 1 (multiple-outcome events; computing particular probabilities): How often do you expect the first ball to turn out green? Play the game many times to see if it works as you expected. What is the probability of the first ball to turn out green?

Exploration 2 (multiple-outcome events; computing particular probabilities; the concept of conditional probability): If the first ball is green, how often do you expect the second ball also to be green? Play the game many times to see if it works as you expected. What is the probability of the second ball being green, given that the first ball is green?