Handout: Strategy Sheet

GUESS FIRST:

How many socks must we draw randomly to guarantee a pair if there are SEVEN colors?

SIMPLIFY:

1. What if there was just one color? How many sock would you have to pull out to guarantee a pair?

   [Hint: not one, you need two for a pair!]

2. How about two colors? Try all the possibilities.

3. Three colors? Try all the possibilities.

Too hard? Too many cases?

UPEND THE PROBLEM!

4. With THREE colors, could you NOT get a pair after ONE draw? After TWO draws? THREE draws? . . .

5. With FOUR colors, how many socks could you pull out, and still NOT to have a match? Could you pull out TWO and not have a match? How about THREE? FOUR? FIVE? SIX? . . .

6. Now what if you had SEVEN colors to start?

   Try the same thing: Could you pull out TWO and not have a match? How about THREE? FOUR? FIVE? SIX? . . .