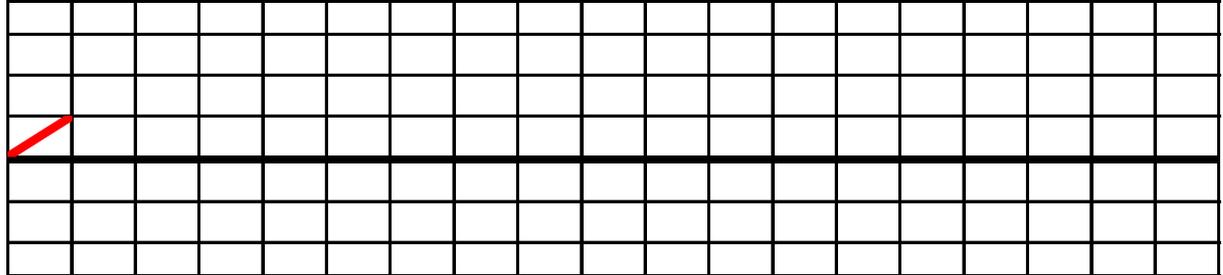# Graphing likelihood

You need either a red and a green cube or a red and a counter.
This worksheet shows you how to record a probability experiment, marked like the example below, on squared paper. Draw a line for 40 squares through the middle of a landscape orientated sheet of squared paper. Mark the space above the line "red" and the space below the line "green."

Red



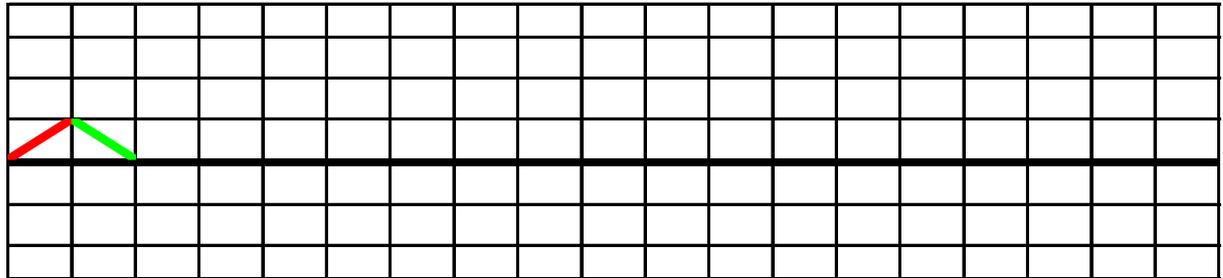Green            5            10            15

Without looking pick up one of the cubes/counters. If it is red draw an upwards diagonal line.

Red



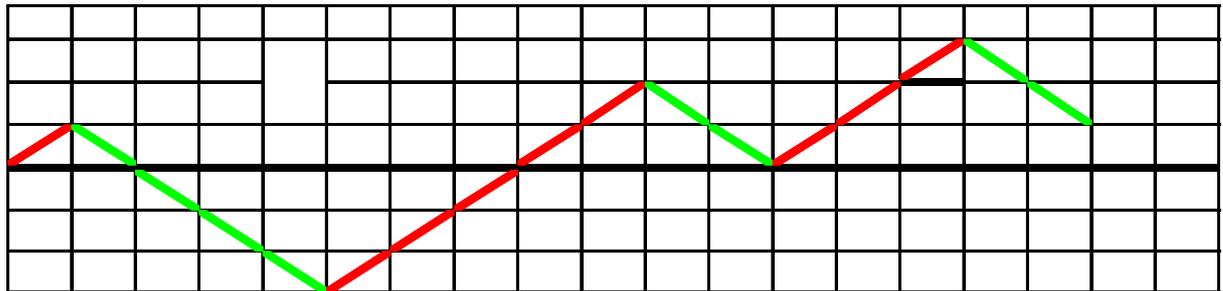Green            5            10            15

If you get a green draw a downwards diagonal line.

Keep doing this until you have picked a colour 40 times. Your graph could look like this; however there is a chance that it may not.

Red



Green            5            10            15

1. Using words like "impossible" "even chance" etc. estimate the probability that the line you are drawing will end on the same level as it started. Were you right?
2. Repeat the experiment but this time use two green and one red. What is your estimate now? Write your estimate as a fraction    *e.g. 1 out of 4 or* $\frac{1}{4}$
3. Change the number of red cubes or counters (3,4 or more?) Predict the result of ompleting the experiment with these colours. Explain your prediction.

A. Daley    Graphing probability