**Activity Instructions:**

* You will be working with the haploid, asexually reproducing M&M organism. M&M’s come in two phenotypic varieties – orange and blue. You will be modeling how a population changes over time.
* Responsibilities during the activity: Record your data in the provided data sheet and graph your data on the white board (make it big!). The graph should have “Generation” on the X axis and “% Orange M&M’s” on the Y axis (see data sheet for example). When the activity is complete, turn in your datasheet to the instructor.

1. Assess your source population
   * The cup on the table is your source population (Gen 0). It has 10 orange and 10 blue M&M’s.
   * Record the proportion of orange M&M’s on your data sheet and plot the data on the white board.
2. Create a new “splinter” population
   * Without looking, draw four M&M’s from the source population.
   * Dump the remaining M&M’s in your “Reserve” cup. Place your splinter population in the “Focal” cup.
   * Based on the M&M’s in your “Focal” cup, fill in the data sheet and graph (Gen 1)
3. STOP! Wait for class discussion before proceeding
4. Create a new generation by fission!
   * Double the number of blue and orange M&M’s in your splinter population. Ex. 3 orange and 1 blue -> 6 orange and 2 blue.
   * Place these M&M’s in your “Focal” cup.
   * Pass the “Focal” cup to the next person
5. Reduce the population size to four
   * Without looking, draw four M&M’s from your cup
   * Dump the remaining M&M’s in your “Reserve” cup. Place your reduced population in the “Focal” cup.
   * Fill in the data sheet and graph with your new data (Gen 2)
6. Repeat steps 4 and 5 until you have completed the process through Gen 5
7. Hand in your datasheet to the instructor.