**Tidbit agenda**

1. Pre-assessment (SKIP)
   1. Questions about evolution, natural selection, and drift
2. Explain background on Huntington’s chorea (2 minutes)
   1. Display a graph showing frequencies of Huntington’s chorea in Dutch S. Africans and worldwide
3. Ask students in their group to come up with two to three hypotheses to explain this pattern (2-3 minutes?). Instructor(s) circulate around the room to answer questions.
4. Share hypotheses with the class (SKIP)
5. We will return to the Dutch example later in the class. Set up difference between Dutch example and the asexual haploid M&M organism that will be the focus of our in-class activity.
6. In-class activity
   1. See attached instructions (read silently)
   2. Discussion 1 (class only)
      1. Did everyone get 50:50?
      2. Who got more orange? More blue? Anybody have just one color?
      3. If we extend this out several generations, what do you think will happen?
   3. Discussion 2 (group and class with RNG)
      1. Look at their group graph of the five generations
         1. What happens to the frequencies over time?
         2. Is this evolution?
      2. Look around the room
         1. How does your data differ from those collected by other groups? Why might this be?
         2. What might natural selection look like in this system? Would all the figures be the same or different?
7. Follow up on Huntington’s disease
   1. How would you revise your previous hypotheses? (post-assessment)
   2. Show Huntington’s in African population
8. Simulation (SKIP)
   1. introduce program at end of class and then assign homework
9. NEXT CLASS: Discussion of homework
10. NEXT CLASS: Conservation genetics case study of water buffalo
11. NEXT CLASS: Discussion of natural selection vs. drift
    1. Emphasis on the idea that evolution does not lead to perfection