

Cheetos vs. Carrots: Exploring the difference between “real” and hyper-processed foods

Activity instructions:

- 1 Small bag of Cheetos or cheese puffs (Important it’s not the crunchy type)
- 1 Small bag of Carrots (1 per student)
 1. Preface the activity by letting students know you are going to do an experiment. Since this is for science, students need to remain objective.
 2. In advance of handing each student their Cheeto, tell them to wait until you tell them to begin eating, eat normally, as it is not a race, and when they are finished eating raise their hand.
 3. As the students are eating you can time how long it took for the majority (80%) of students to finish (don’t unveil the times until after both are done)
 4. Repeat with a carrot. Again time how long it takes for the majority of the group to finish.
 5. Have the group guess how long each experiment took, and then unveil the actual times (Usually 6-7 seconds for the Cheeto, 30-40 seconds for the carrot)

Possible Debrief Questions:

- 1. What differences did you find between the carrot and Cheeto?**
 - took longer to eat the carrot
 - Smell and taste differences
 - real vs fake/processed foods
- 2. Is it important that the carrot takes longer to eat than the Cheeto?**
 - Yes, it’s easy to overeat/eat more of the Cheetos
 - Plant based foods, and other “natural/real” foods, contain large amounts of fibre and water which slow down your ability to eat the food, and reduce energy density
- 3. Why did it take so much longer to eat the carrot?**
 - Cheetos have been engineered in such a way to have “vanishing caloric density”¹, basically the cheeto melts or dissolves almost immediately in your mouth, in this way the brain does not register the energy coming in, allow us to eat more than we otherwise would. Furthermore it is easy to eat quickly.

Other facts about processed foods

Food companies have invested billions of dollars into marketing and product development, in order to tempt us to eat more. They do this both with advertising, and also by researching what flavours most appeal to the masses, but don’t overwhelm the taste buds in order to entice “consumers” to eat more.

References:

- 1) <http://www.nytimes.com/2013/03/18/books/salt-sugar-fat-by-michael-moss.html>