

Ted Alejandre, County Superintendent San Bernardino CoUnity Superintendent of Scho Transforming lives through educ



Monday, June 1 1:00pm

<u>Food – Delicious Science, "Food on the Brain"</u> $4^{th} - 8^{th}$ grades.

Food - Delicious Science is the thrilling science story of the food on your plate and the physics, chemistry and biology that lies hidden inside every bite. Across three episodes we use the latest imaging techniques to reveal this inner world of food and we reveal along the way why such a variety of foods have ended up in our diet and how they affect our lives. When viewed at the microscopic level, food resembles a vast range of alien landscapes that shift in remarkable ways as we cook them. Each time we eat, a cascade of biological reactions is set off inside our bodies: from flavor explosions in the mouth; to an energy rush; to occasionally triggering waves of disgust. And how these ingrained human reactions and cravings for food have deep evolutionary roots that offer a whole new way of thinking about our relationship to the modern diet. The science is set against sumptuous location photography shot across the world: from the oldest rice terraces in the Philippines to an ancient variety of potato in the Andes Mountains of Peru; from the corn fields of Mexico to the milk dairies of Bulgaria as we seek the origins of some our favorite foods to deepen our understanding of why we eat them. This is food as you've never seen it before.

In part 1 travel the world with Michael Mosley and James Wong to discover how the chemistry in our food affects our brains and creates our deepest cravings. This is delicious science.

After watching this episode, choose from the following questions and/or tasks to extend your learning

Question Box 1

- What is the central message in this program? Explain?
- What are the program's supporting claims or reasons that support the central message?
- What is the author trying to say through the TV program? What makes you believe this?
- What evidence does the TV show director give to support his or her central idea?
- What is this program "saying"? Cite several pieces of textual evidence to support your analysis.
- What does it mean to view food from a microscopic level?
- What is the significance of the title, "food on the brain"?
- What is meant by the brain is the "greediest organ in the body? Do you think this is an accurate statement? Justify your answer.





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- Explain how our brain influences our diet.
- How does the brain influence our cravings?
- Describe the use of the latest imaging techniques to reveal this inner world of food chemistry.
- What location in this episode appealed to you the most and why?
- How does the location in this episode influence the food we eat?
- Thinking about the science of food, which food in this episode was most interesting, revealing and/or surprising. Tell why.

Question Box 2

- What did you find most interesting and why?
- How much did you know about the subject before we started?
- What did you enjoy about this program?

<u>Box 3 (Tasks)</u>

- During the video, make a list of evidence of how the chemistry in our food affects our brain.
- Draw a diagram of the brain and show which parts are affected by food chemistry.

Box 4 (Enrichment)

- Research and discuss with evidence why we crave certain foods.
- Make a claim with evidence for or against the following statement: We are what we eat.

Box 5 (Extend/Real-Life)

- Watch this short TedEd video: <u>https://www.youtube.com/watch?v=YVfyYrEmzgM&feature=youtu.be</u>
- What was one fact you learned from the video?
- Do you ever eat even when you don't feel hungry? Why or why not?
- See how accurate the information in the video is to how you experience hunger and fullness.
 - 1. Write down the following information for each meal and snack of the day.
 - 1. Type and amount of food.
 - 2. Time of the day.
 - 3. Amount of time spent eating or until you felt full.
 - 4. Mood before and after eating.
- Review the information you wrote in your food journal and answer these questions.
 - 1. Which foods made you feel fullest and why?
 - 2. Which foods had the biggest impact on your mood and why?
 - 3. Which foods made you feel the least full and why?
 - 4. Were your results similar to how the video explained the process? List the similarities and differences.
- Review the Dietitian Career Profile at this link:<u>https://www.cacareerzone.org/profile/29-1031.00</u>







- 1. According to the profile what is the main purpose of a dietitian?
- 2. How much education is required to become a Registered Dietitian?
- 3. Would you consider a career in nutrition? Why or why not?
- What kinds of classes will, or could you take in middle and high school that would help prepare you for this type of career?