



Ted Alejandre, County Superintendent

San Bernardino County
Superintendent of Schools
Transforming lives through education



Tuesday, June 2
1:00pm

Food – Delicious Science, “A Matter of Taste”
4th – 8th 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 of our favorite foods to deepen our understanding of why we eat them. This is food as you've never seen it before.

In part two travel the world with Michael Mosley and James Wong to learn about the science that makes our food taste delicious and the powerful effect it has on our tongue and nose.

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

Question Box 1

- What is your opinion about the program? What evidence do you have to support your opinion?
- What evidence does the writer give to support his or her main idea? Provide text evidence.
- Using evidence from the text, explain why “Food – Delicious Science” is a good title for this TV program.
- Explain the statement, “the marriage between chemistry and biology”.
- Explain how biology and chemistry is the root of all sensations, taste and flavors.
- Explain how Michael “deconstructs” his Thai meal.
- Describe the location of sweet, sour, salty and bitter on our tongue.
- What is umami?
- How can taste be reduced down to just five tastes: sweet, sour, salty, bitter, and umami?
- Describe the use of the latest imaging techniques to reveal this inner world of food chemistry and biology.
- 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

- How much did you know about the subject before we started? Explain.
- How do you feel about this TV show?
- What parts of it do you particularly like? Dislike? Why?
- What did/do you enjoy about this program?
- What are your favorite foods? Using what you have learned, describe why you like them?

Box 3 (Tasks)

- Make and label a model of the tongue to include taste buds.
- Describe with evidence the science that makes food taste good.

Box 4 (Enrichment)

- Research and discuss with evidence how smell is connected with taste.
- Discuss with evidence, why does some food taste good to some, but not others.

Box 5 (Extend/Real-Life)

- Discuss objective versus subjective thinking with regards to food tasting “good”
- Each region of the United States is known for their cuisine. Sometimes people don’t eagerly accept traditional foods from different regions.
 1. Before you view the food map. Predict what food California is known for.
 2. Open the food map at this link:
<https://drive.google.com/open?id=1jxKdpYXrgFtHfklBkR3ZwqN8FnvZi-v4>
 3. Were you correct about Southern California’s food?
 4. Find one food that you do not recognize and google a recipe for it.
 5. If you made this food item would you eat it? Why or why not?
 6. What do you find strange about this food item and why?
- What type of career do you think would need to have a good understanding of regional differences in cuisine?
- Compare and contrast to careers from the list found at this link:
<https://www.cacareerzone.org/search/occupations/cooking>
- Write a summary about the career you found most interesting.
- Mindful eating. Mindful eating is a way to be in the moment and focus on your meal. It can be a very positive experience. Next time you are having a meal, practice mindful eating:
 1. Eat slowly
 2. Savor what you are eating, pay attention to what it tastes and smells like
 3. Focus on each bite
 4. Think about ways to be thankful for what you are eating
 5. Disconnect from any technology while you are eating



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