

Science
Shumei Hall and Gallery

Field Trip: What Are We Eating?

A Science Presentation About Genetically Modified Foods

Time: Approximately 2 hours

Grades 7-8

California Science Content Standards

Grade 7

Cell Biology

1. All living organisms are composed of cells, from just one to many trillions, whose details usually are visible only through a microscope. As a basis for understanding this concept:

c Students know the nucleus is the repository for genetic information in plant and animal cells.

Genetics

2. A typical cell of any organism contains genetic instructions that specify its traits. Those traits may be modified by environmental influences.

Grade 8

Investigation and Experimentation

9. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations.

Indicators of achievement

- Student remains focused while viewing photo exhibit and video.
- Student shows understanding of the concept of genetically modified food.
- Student develops and communicates a point of view about pros and cons of genetically modified food.
- Student learns to evaluate the accuracy and reliability of the data presented.
- Student applies new knowledge while collecting relevant data at home.

Materials

Video: "Deconstructing Supper"

Preparation/Background

Ask the students beforehand if any of them know or notice where their food comes from and whether they have concerns about its safety.

Vocabulary

genetic engineering, GM or genetically modified food (used in about 60 to 70% of all processed foods), organic, biotechnology, Monsanto, canola, genes, conventional vs. organic agriculture, BGH (bovine growth hormone).

Activity

1. Visit the photography exhibition in the gallery.
2. Watch the video.
3. Discussion: Students will discuss and evaluate the accuracy and reproducibility of data. Related to this we will distinguish between variable and controlled parameters in this report.
4. In class or for homework, students will be asked to list what they are eating at home for one day. They will check the labels etc. and try to find out where the food is grown and any other information about it such as how the food has been treated. What kind of information is available? Then there will be a class discussion on what they have learned by doing this investigation. Student completes a writing assignment that explains important concepts learned from this activity and communicates the student's point of view about the content of the presentation.

Assessment

Evaluate the student's participation and follow-up work. Did the student participate fully in receiving and discussing new information? Did the student follow up by successfully collecting data as suggested for homework? Did the student's writing assignment show understanding of the concepts learned during this activity and communicate his/her point of view successfully?

Contact and Field Trip Information

Reservations: Jane Imai, janeimai@shumeiarts.org or 626-584-8841

Map: www.shumeiarts.org/map.html

Location: Shumei Hall, 2430 E. Colorado Blvd., Pasadena, CA 91107