

Lesson Plan: Food Science I

Topic: Comparing Cooking Oils- properties, history, function

Standards:

N9.3.2 Analyze nutritional data. (HPE02.06.a,HPE02.06.b)(MAT03.03.a)(PWR2.2.a)(RWC04.10.c)
N9.3 Evaluate nutrition principles, food plans, preparation techniques and specialized dietary plans

Objectives:

LO: Students will determine through discussion which oil is the best to use based on what they have researched and experienced about the oils.

CO: Students will participate in expert groups and research a type of oil and its properties to share with other members of the class.

Materials:

Handouts (or paper to create the chart)

Access to a computer lab for at least 45

Prior Information:

Prior to this lesson, students should have learned about mono and poly-unsaturated fats, saturated fats, omega acids, and the needs and benefits of all of these. This lesson would be a good supplement to a lecture on properties and composition of oils.

Set:

List two types of cooking oils. What is the benefit of using different types of oils?

Body:

1. Discuss the warm-up. During this time handout the worksheet that students will need to fill out or have them pull out paper to create their own.
2. Describe the assignment Oils are extracted from seeds, nuts and the flesh of fruits. A variety of different oils are used by different people for several reasons. In groups students will be researching the oil they are assigned and then they will be sharing with others. Separate them into expert groups (there are seven oil types) and after the research is complete, they will be taking their expert knowledge to another group and share. In these groups the students will be discussing which of the oils is the best and why?
3. Complete the research. There is a series of helpful websites the students could use (see attached). These could be posted on a teacher resource page or written on a board. During this time it is important to verify that the students are obtaining the correct information before they share with others.
4. Once research is complete, students will separate into groups so there is one expert for each of the oils in the group. Students will share their information, write down the others' information and then begin discussing.

- a. In your group, you need to discuss and decide which oil is the best and why. Discuss different areas of information, personal experience and debate until you come up with a majority vote. Be ready to discuss your decision with the class.
5. After the discussion is complete, ask each group to share their chosen oil and why they chose it. This can lead to more discussion on other cooking oils, prices of oils, and more. In reality, there is not a #1 best oil for you. Each has different properties, benefits and drawbacks. There are some that are better for certain things and some you should avoid (or are too pricey) but there is not one and only answer.

Conclusion:

In reality, there is not a #1 best oil for you. Each has different properties, benefits and drawbacks. There are some that are better for certain things and some you should avoid (or are too pricey) but there is not one and only answer.

Assignment:

In your group, you need to discuss and decide which oil is the best and why. Discuss different areas of information, personal experience and debate until you come up with a majority vote. Be ready to discuss your decision with the class.

Sponge:

Looks up recipes that use the different types of oils and explain why that oil was chosen for that recipe (smoke point, flavor, etc).

Modifications:

Supplemental Reading: <http://www.lifemojo.com/lifestyle/cooking-oil-facts-238938> (and it is attached)