

Name:

Class:

Date:

Activity 13.5A: Cooking Oils

Safety Note

Inform your instructor if you have an allergy to any of the food products being used in this lab exercise.

Materials Needed

- Cooking oils labeled A–E (corn, canola, sunflower, mixed vegetable, and peanut oil)
- Frozen food suitable for deep frying (battered/breaded chicken breast works well)
- Heat source (one burner for each type of oil)
- Nutrition labels for each oil (printed copies)
- Paper towels
- Paper plates
- Pans (one for each type of oil)
- Thermometer(s)
- Tongs (one for each type of oil)

Instructions

This lab will allow you to examine the differences in some of the most common types of vegetable oils. You will examine nutrition facts and physical characteristics.

Section One: Nutritional Content

Complete the worksheet with information from the nutrition labels of each type of oil.

Nutritional Content	Corn oil	Canola Oil	Sunflower Oil	Mixed Vegetable Oil	Peanut Oil
Calories per serving	Answer:	Answer:	Answer:	Answer:	Answer:
Calories from fat	Answer:	Answer:	Answer:	Answer:	Answer:
Total fat (grams)	Answer:	Answer:	Answer:	Answer:	Answer:
Total fat (%)	Answer:	Answer:	Answer:	Answer:	Answer:

Nutritional Content	Corn oil	Canola Oil	Sunflower Oil	Mixed Vegetable Oil	Peanut Oil
Trans fat (g)	Answer:	Answer:	Answer:	Answer:	Answer:
Polyunsaturated (g)	Answer:	Answer:	Answer:	Answer:	Answer:
Monounsaturated (g)	Answer:	Answer:	Answer:	Answer:	Answer:
Sodium (mg)	Answer:	Answer:	Answer:	Answer:	Answer:
Carbohydrates (g)	Answer:	Answer:	Answer:	Answer:	Answer:

1. Which of the oils do you think is the healthiest? Explain your answer.

Answer:

2. Why do you think manufacturers produce mixed vegetable oil?

Answer:

Section Two: Cooking

Safety Note

You will be using hot oil to cook food. Observe safe practices to prevent burns and other injuries.

1. Heat oils to 350°F (use a thermometer to check temperature).
2. Place five plates (one for each type of oil) on a table. Prepare each plate with a double layer of paper towels (to absorb excess oil). Label the plates A through E to coincide with the different oils. (It may be easier to place the labels on the table.)
3. Thoroughly cook one piece of food (potatoes or chicken breast chunks work well) in each type of oil. Place the cooked food from each pan on the prepared plates. After two minutes, observe the foods and answer questions 4 through 8.

4. Which piece of food left the largest oil spot on the paper towel?

Answer:

5. Which piece of food left the smallest oil spot on the paper towel?

Answer:

6. What could the size of the oil spot indicate about the different types of oil?

Answer:

7. What differences do you observe in the external texture of the foods?

Answer:

8. Taste a piece of food fried in each type of oil. Do you observe any difference in the taste or texture of the food?

Answer: