Activity 6 Resources

Example Nutrition Labels for Investigation 2
Corn Oil

Nutrition Facts
Serving Size 1 tbsp 14g (13 g)

Amount Per Serving

Calories 119   Calories from Fat 119

                                        % Daily Value*

Total Fat 14g	21%
Saturated Fat 2g	9%
Trans Fat	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 0g	0%
Dietary Fiber 0g	0%
Sugars 0g	
Protein 0g	

Vitamin A	0% • Vitamin C	0%
Calcium	0% • Iron	0%

Shortening

Nutrition Facts
Serving Size 1 tbsp 13g (12 g)

Amount Per Serving

Calories 115   Calories from Fat 115

                                        % Daily Value*

Total Fat 13g	20%
Saturated Fat 5g	26%
Trans Fat	
Cholesterol 7mg	2%
Sodium 0mg	0%
Total Carbohydrate 0g	0%
Dietary Fiber 0g	0%
Sugars 0g	
Protein 0g	

Vitamin A	0% • Vitamin C	0%
Calcium	0% • Iron	0%

Chocolate ice cream

Nutrition Facts
Serving Size 1/2 cup 4 fl oz 66g (66 g)

Amount Per Serving

Calories 143   Calories from Fat 64

                                        % Daily Value*

Total Fat 7g	11%
Saturated Fat 4g	22%
Trans Fat	
Cholesterol 22mg	7%
Sodium 50mg	2%
Total Carbohydrate 19g	6%
Dietary Fiber 1g	3%
Sugars 17g	
Protein 3g	

Vitamin A	5% • Vitamin C	1%
Calcium	7% • Iron	3%

Doughnut

Nutrition Facts
Serving Size 1 doughnut 52g (52 g)

Amount Per Serving

Calories 200	Calories from Fat 110

% Daily Value*

Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat	
Cholesterol 5mg	2%
Sodium 95mg	4%
Total Carbohydrate 22g	7%
Dietary Fiber 1g	4%
Sugars 10g	
Protein 2g	

Vitamin A	0%	• Vitamin C	2%
Calcium	6%	• Iron	4%

Barbecue potato chips

Nutrition Facts
Serving Size 1 bag 7 oz 198g (198 g)

Amount Per Serving

Calories 972	Calories from Fat 558

% Daily Value*

Total Fat 64g	99%
Saturated Fat 16g	80%
Trans Fat	
Cholesterol 0mg	0%
Sodium 1485mg	62%
Total Carbohydrate 105g	35%
Dietary Fiber 9g	35%
Sugars	
Protein 15g	

Vitamin A	9%	• Vitamin C	112%
Calcium	10%	• Iron	21%

Cola

Nutrition Facts
Serving Size 1 bottle 16 lf oz 491g (491) Tj (

Amount Per Serving

Calories 182	Calories from Fat 1

% Daily Value*

Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 20mg	1%
Total Carbohydrate 47g	16%
Dietary Fiber 0g	0%
Sugars 44g	
Protein 0g	

Vitamin A	0%	• Vitamin C	0%
Calcium	1%	• Iron	3%

Chocolate Chip Cookies

Nutrition Facts
Serving Size 1 cookie, medium 2-1/4" dia 16g (16 g)

Amount Per Serving

Calories 78	Calories from Fat 41

% Daily Value*

Total Fat 5g	7%
Saturated Fat 2g	11%
Trans Fat	
Cholesterol 11mg	4%
Sodium 55mg	2%
Total Carbohydrate 9g	3%
Dietary Fiber	0%
Sugars	
Protein 1g	

Vitamin A	2%	• Vitamin C	0%
Calcium	1%	• Iron	2%

Investigation 1 – Student Information

Definitions
Saturated Fat - Saturated fats are liquid when heated and solid when cool. The main sources of saturated fat in the typical American diet are foods from animals and some plants.
Unsaturated Fat - There are two kinds of unsaturated fat. Polyunsaturated oils are liquid at room temperature and in the refrigerator. Monounsaturated oils are liquid at room temperature but start to solidify at refrigerator temperatures. The main sources of unsaturated fat in the typical American diet are foods from certain plant oils.

Descriptions
One pan contains CORN OIL. The other contains SHORTENING.

> **Corn Oil** is made from corn. It is light yellow in color and has a mild taste. Corn oil is used in cooking and for biodiesel, and is a key ingredient in margarine.

> **Shortening** is a solid fat made from vegetable oils, such as soybean and cottonseed oil, which have been hydrogenated to create a solid at room temperature. Vegetable shortening is virtually flavorless, and is used to make baked goods light and flaky. Crisco is a popular brand of vegetable shortening.

Investigation 2 – Student Information

Did you know that fat has more calories than carbohydrates or protein? One gram of fat has 9 calories, while 1 gram of carbohydrates has 4 calories. A gram of protein has 4 calories too. That means that when you eat fat, you eat more than twice as many calories than when you eat carbohydrates or proteins. This is why it's important to watch the amount of fat you eat.

1. Skim all of the nutrition labels.
2. Pick one to investigate.
3. Fill in the information on the data sheet.
4. Create a table, chart, or graph to compare the information you collected.
5. Use your table, chart, or graph to answer the questions below on the back of your data sheet.

Questions

- How many grams of fat, carbohydrates, and protein does the food contain?
- Does the food contain any vitamins and minerals?
- Does the food have more calories from fat, from protein, or from carbohydrates?
- Is there a lot of sugar in this food? How do you know?
- Is this food healthy? Why or why not?

Investigation 1 – Data Sheet

Prediction

Which pan contains the saturated fat? _____

Conducting the Investigation

1. Put on an oven mitt.
2. Grab the metal pipe and carefully dip one end into the pan of fat.

3. Slowly lift it out, letting the fat drip off.
4. Quickly dip the metal in cold water.
5. Look closely at what happened.

Metal Pipe 1, Pan

OBSERVATIONS - What happened to the fat on the metal pipe?

_____

Metal Pipe 2, Pan 2 – OBSERVATIONS

What happened to the fat on the metal pipe?

_____

CONCLUSIONS – Why do you think this happened? Be specific and give evidence.

_____

_____

BOTTOM LINE – Which pan contains the saturated fat? How do you know?

_____

APPLICATION – The American Heart Association says that eating too much saturated fat causes plaque build-up inside the arteries (where the blood travels) of the human body. How is the experiment similar to this? How is it different? Do you think plaque-build in the arteries is a problem? Why or why not?

_____

_____

_____

_____

Investigation 2 – Data Sheet

Nutrients by weight	Calories per gram	Amount of calories per nutrient
Total Carbohydrates = _____ grams	4	_____ grams x 4 = _____
Total Fat = _____ grams	9	_____ grams x 9 = _____
Protein = _____ grams	4	_____ grams x 4 = _____
Fiber = _____ grams		
Sugars = _____ grams		
Does the food have vitamins and minerals? a. Yes, a little. b. Yes, a lot. c. Yes, just enough. d. No		

Example
Protein = 8 grams
8 grams x 4 = 32 calories from protein

Brain Writing

Questions
1) Should you eat fat? Why?
2) Can fat be bad for you? How?
3) What's the difference between healthy and unhealthy foods?
4) Now that you know more about fat, how will you change your diet?

Question:

Person	Idea 1	Idea 2	Idea 3
1			
2			
3			
4			
5			
6			

Should you eat fat? Why?	*Can fat be bad for you? How?*
What's the difference between healthy and unhealthy foods?	*Now that you know more about fat, how will you change your diet?*