

Milk and Milk Products: Skills Supplement

Summary

Milk and milk products as a source of nutrients for a variety of function in the body.

Main Core Tie

Food Science

[Strand 8 Standard 2](#)

Background for Teachers

Milk and milk products are a major food group because they contain a combination of essential nutrients.

The average composition of cow's milk is 87% water, 3-5% protein, 4% fat, 5% carbohydrate, and a little less than 1% minerals. Milk solids are an outstanding source of calcium, a good source of riboflavin and high quality protein, vitamin A, thiamine, vitamin B12. Fortification of milk with vitamin D began in the 1930's. Milk also contains vitamins E and K.

Milk is the basic ingredient of many manufactured dairy products. Milk products generally reflect the nutrients found in the milk from which they are made. For example: skim milk contains about half the calories of whole milk. Therefore, yogurt made from skim milk would contain half the calories of yogurt made from whole milk. When ingredients other than milk are used in milk and dairy products, the nutritional value of the food will also reflect the addition of the other ingredients (as in ice cream). MyPyramid's recommendations for the Milk Group is that we select low-fat or fat-free products. If you have a problem with lactose intolerance, chose lactose-free products and wisely choose other foods, looking for calcium-enriched breakfast cereals or fruit juices.

Instructional Procedures

LEARNING ACTIVITIES AND TEACHING STRATEGIES

OPTION #1

Have students do a price comparison using one of the two alternatives listed. Use worksheet [SHOPPING FOR MILK](#) and make conclusions on the findings. Discuss what is the best milk product for various uses. Have students do a taste comparison of the types of milk while doing the price comparison.

VARIATION: Provide packages of different forms of milk (fresh whole, fresh skim, 2%, 1%, condensed, evaporated, condensed sweetened, powdered, etc.).

VARIATION: Have students do a homework assignment to price compare a variety of milk products at two different types of stores - supermarket vs. the corner convenience store.

OPTION #2

Demonstrate or have students do a pudding lab experiment. Use the same recipe using Instant Vanilla or Chocolate Pudding Mix. Use a different form of milk each time to make the pudding but do not reveal identity until after students have tasted each pudding. Have students compare appearance, flavor, and taste and complete [PUDDING COMPARISON](#).

Using the results of the SHOPPING FOR MILK draw conclusions as to the best milk product to use for pudding and other cooking uses vs. drinking milk.

OPTION #3

Discuss how various cheeses are made. Provide a taste table of different kinds of cheeses. Use [CHEESE PREFERENCES](#) and have students describe flavor and rank them 1-8 according to personal preference. Point out that cheese is like the milk from which it is made.

OPTION #4

Provide a variety of lab experiences using milk products. The following recipes are provided: [LEMON ICE CREAM, THREE-FRUIT SHERBET and PLANTATION MILK SHAKE, VANILLA ICE CREAM.](#)

Teacher may choose other recipes as desired.

OPTION #5

As an evaluation have students play the [CALCIUM GAME.](#)

Authors

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