4-H Fun with Foods Level I

4-H Food & Nutrition

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4-H Fun with Foods is an update of Food & Nutrition Have Fun with Foods Phase 1
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Dennis Hinkamp for taking the measuring photographs in Lesson 1
and to Katie Camp for appearing in the photos.
Nothing is better than a hot drink on a cold day, or a blended drink on a hot day. Learning to use the stove top and blender safely are important in order to prepare these yummy drinks.

Activity 1: Heating Milk & Making Hot Chocolate

Goal:
Compare methods for heating milk
Learn how to heat milk without scorching

Materials Needed:

| 2 cups milk | 1 small saucepan |
| 1 double boiler* | 1 wire whisk |
| Ingredients as listed in selected recipe |

* If you do not have a double boiler, you can use a glass or metal bowl fit over a pot of simmering (NOT BOILING) water. Place the milk in the bowl.

1. Heat 1 cup of milk in the small saucepan over medium heat. Watch it carefully so that it does not boil over or scorch. Heat until bubbles appear around the edge of the pan and watch to see if a skin begins to form on the top of the milk. Use a spoon to lift off skin.
2. Heat 1 cup of milk in a double boiler (a double boiler is basically two sauce pans - the larger pan is on the bottom and is filled with a couple inches of water, the smaller sauce pan fits on top of this one and uses the heat from the water below to heat milk, melt chocolate or cook other food items which require gentle heat). If you do not have a double boiler, you can use a glass or metal bowl fitted over a pot of simmering water. Place the milk in the bowl.
3. As milk warms up, beat with a rotary beater or whisk to form a foam. Heat the milk until you are sure it is hot.
4. Compare the appearance of the two pans of milk.
5. Pour the milk from the two pans, and see if you can tell a difference in heating milk by the two methods.
6. After comparing the milk, use it to make homemade hot chocolate in Activity 2.

Answer these Questions:
✓ What caused the milk heated over direct heat to be covered with a skin?
✓ What prevented the formation of skin on the milk heated in a double boiler?

Explanation:
Milk contains vitamins, minerals, protein, and if using whole milk, fat. Heat makes protein coagulate or clump together. High heat may cause scorching or burning of protein. High heat causes the protein to toughen. The skin that forms on top of the milk and the material you see sticking to the sides and bottom of the pan is protein that has changed due to heat. This will scorch very easily when heated directly over the burner.

Lower heat in the double boiler prevents scorching. Stirring will help to prevent the settling of protein on the bottom and side of the pan. Whipping with a beater makes bubbles on the milk and keeps skin from forming.

Safety Tip
Place all pans so that handles are away from the edge of the stovetop. Protruding handles can be accidently knocked or tipped off the stove, causing serious injuries.

Activity 2: Hot Chocolate

Goal:
Learn how to make homemade hot chocolate.

Materials Needed:
- Double boiler*
- Measuring spoons
- Egg beater
- Wooden spoon
- Measuring cups
- Ingredients as listed in recipe

* If you do not have a double boiler, you can use a glass or metal bowl fit over a pot of simmering (NOT BOILING) water. Place the milk in the bowl.
**Activity 3: Powdered Hot Chocolate Mix**

**Goal:**
Learn how to make homemade powdered hot chocolate.

**Materials Needed:**
- Mixing bowl
- Measuring cups
- Air-tight container
- Large spoon
- Measuring spoons
- Ingredients as listed in recipe

**Recipe: Powdered Hot Chocolate Mix**

**Yield:** 30-40 servings

**Ingredients:**
- 3 cups powdered sugar
- 2 cups instant chocolate milk mix (such as Nesquick)
- 1 ½ cups non-fat instant dry milk
- 1 large box (4.6 ounces) instant chocolate pudding mix

**Directions:**
2. Store in air-tight container.

**To Serve:**
Add 2 heaping teaspoons of hot chocolate mix to 8 ounces of hot water, stir and serve.
Activity 4: Using a Blender

Goal:
Learn how to properly and safely use a blender.

Materials Needed:
- Measuring cups
- Measuring spoons
- Blender
- Ingredients as listed in selected recipe

Select from one of the following three recipes, or try them all! You can make milk drinks from fresh milk, evaporated milk (canned), or from non-fat dry milk (powdered).

Safety Tip: Using Blenders
- Make sure your hands are completely dry while using the blender. Never turn the blender on or off with wet hands. Also never use wet hands to plug or unplug a blender.
- Make sure the lid is on tight before starting the blender. Turn off the blender before removing the lid.
- Make sure the base of the blender is tightly secured before adding ingredients.
- Do not put spoons or other utensils in the blender while blender is on.
- Unplug the blender when you are not using it.
**Recipe: Dreamy Orange Smoothie**  
Yield: 4 Servings

**Ingredients:**
- 1- 6 ounce can frozen orange juice
- 1 ½ cans (9 ounce) milk (using the orange juice can to measure)
- 1 teaspoon vanilla
- 1 ½ cans (9 ounces) water
- ¼ cup sugar
- 6 ice cubes or 1 cup crushed ice

**Directions:**
1. Crush ice in blender.
2. Add all ingredients. Blend well.
3. Pour into glasses. Enjoy!

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**Recipe: Banana Delight Shake**  
Yield: 4 Servings

**Ingredients:**
- 1 banana cut into small pieces
- 1 ½ cups milk
- 1 teaspoon vanilla
- 1 carton (8 ounce) fruit flavored yogurt
- ¼ cup sugar
- 6 ice cubes or 1 cup crushed ice

**Directions:**
1. Mix all ingredients in blender until ice is crushed and drink is thick.
2. Pour into glasses. Enjoy!
Nutrition Fact

Other than making a fun green smoothie, why add spinach? Spinach is known as a “power” food. Keep an open mind about it. Eating spinach will help you meet your daily requirements for calcium, iron, folate and vitamin A.

What have you learned?

✓ How will you use what was learned?
✓ What happened that you didn’t expect would happen?
✓ If you had it to do over again, what would you do differently?
✓ How do you prevent skin from forming on milk?
✓ What are some things you learned today that you can demonstrate to others?

Recipe Sources

✓ Tooele County Extension office
✓ Wasatch County Extension office
✓ http://allrecipes.com
✓ 4-H Fun with Foods by Georgia Lauritzen

References and Resources:

✓ Healthy Drinks/Healthy Kids
✓ eXtension
✓ http://www.extension.org/pages/Healthy_Drinks
LEON 4: FOR THE RECORD
Beverages

MEETING

Date ______________________

Foods I prepared or helped prepare ________________________________________________

________________________________________________________________________________

________________________________________________________________________________

I demonstrated ___________________________________________________________________

________________________________________________________________________________

________________________________________________________________________________

This lesson taught me the following skills _____________________________________________

________________________________________________________________________________

________________________________________________________________________________

Some of the activities I tried _________________________________________________________

________________________________________________________________________________

________________________________________________________________________________

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<tr>
<th>Type of Food Prepared</th>
<th># Times Prepared</th>
<th>To Whom Served</th>
<th>Hours Spent</th>
<th># Served</th>
<th>Cost</th>
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