4-H Fun with Foods
Level I

4-H Food & Nutrition

Utah State University is an affirmative action/equal opportunity institution.

www.Utah4-H.org
Table of Contents

Introduction .................................................................ii
Lesson 1: Getting Ready to Cook! .................................1-1
Lesson 2: A Slice of Nutrition ......................................2-1
Lesson 3: Cookies: Drop & Bar ....................................3-1
Lesson 4: Beverages .....................................................4-1
Lesson 5: Microwave Munchies .................................5-1
Lesson 6: Cookies: Molded, Refrigerator & Rolled ..........6-1
Lesson 7: Sandwiches ....................................................7-1
Lesson 8: Plan a Party! ..................................................8-1
Lesson 9: Smart Shopping! ..........................................9-1
Lesson 10: Have a Party ..............................................10-1
Appendix: Utah State University Extension Office Information ..................................................A-1

4-H Fun with Foods is an update of Food & Nutrition Have Fun with Foods Phase 1
by Georgia Lauritzen, USU Extension

County Extension Agents
Darlene Christensen, County Extension Agent
Susan Haws, County Extension Agent
Naomi Weeks, County Extension Agent
Debra Proctor, County Extension Agent
Ronda Olsen, County Extension Agent

State 4-H Office
Lauralee Lyons, State 4-H Office
Monica Schruhl, State 4-H Office

Utah State University Cooperative Extension, 2010

Special thanks to
Deb Jones, Alaska 4-H Program Leader
Dennis Hinkamp for taking the measuring photographs in Lesson 1
and to Katie Camp for appearing in the photos.

Utah State University is committed to providing an environment free from harassment and other forms of illegal discrimination based on race, color, religion, sex, national origin, age (40 and older), disability, and veteran’s status. USU’s policy also prohibits discrimination on the basis of sexual orientation in employment and academic related practices and decisions. Utah State University employees and students cannot, because of race, color, religion, sex, national origin, age, disability, or veteran’s status, refuse to hire; discharge; promote; demote; terminate; discriminate in compensation; or discriminate regarding terms, privileges, or conditions of employment, against any person otherwise qualified. Employees and students also cannot discriminate in the classroom, residence halls, or in on/off campus, USU-sponsored events and activities. This publication is issued in furtheance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle E. Cockett, Vice President for Extension and Agriculture, Utah State University.
Microwaves cook by causing water molecules to rub against each other. This constant rubbing or friction creates heat inside the food. This makes food heat very quickly while at the same time not heating the air around the food. Microwaves vary by how many watts they have, the higher the number of watts the quicker the food will cook. Because microwaves vary, cooking times on recipes may need to be adjusted depending on your microwave.

Activity 1: Testing dishes for microwave safety

Goal:
Learn what kinds of dishes are microwave safe.

Materials Needed:
- Glass dish
- Plastic dish
- 1 or 2 other kinds of dishes (non-metal)
- Glass measuring cup
- Water

Directions:
1. Place the empty dish to be tested inside the microwave. Remember do NOT test any container that is metal or has metal trim. A spark and fire can result. NEVER put metal in the microwave.
2. Measure 1 cup of water in the glass measuring cup.
3. Place cup in microwave next to the dish (or inside the dish if it is large).
4. Microwave on high for 1 minute.
5. Carefully test the temperature of the dish and water. If the dish is cool and the water is warm the dish is microwave safe.
6. If the dish is hot and the water is cool do not use the dish for microwave cooking.
7. Repeat steps with the next dish.

What have you learned?

√ What containers seemed to work best in the microwave?
√ Were any dishes labeled microwave-safe? Where was this information located?
√ What would happen if you cooked in containers that were not microwave safe?
Safety Tip

√ Never run the microwave empty or if the door is not completely closed.
√ Use only microwave-safe cookware.
√ Some plastics may melt in the microwave - be sure they are microwave safe before using.
√ Never use aluminum foil or any containers with metal.
√ Have pot holder handy to remove hot containers.
√ Be careful when removing coverings. Steam is very hot and can burn!
√ Using a microwave safe cover that is vented to allow some of the steam to escape can create moist heat that will help kill harmful bacteria especially in cooking meat or poultry.
√ Using a vented cover over the food can also help food cook evenly and keep the inside of the microwave clean.
√ If a spill occurs, be sure to wipe it up immediately.
Activity 2: Making Mini Pizzas

Goal:
Learn how long it takes to microwave, to melt cheese and cook dough.

Materials Needed:
Microwave
Microwave safe plate
Ingredients as listed in recipe

Mini Microwave Pizzas

Yield: 6 servings

Ingredients:
1 large can refrigerated biscuits
16 ounce (small) jar spaghetti sauce
small package reduced-fat mozzarella cheese
Toppings: pepperoni, peppers, mushrooms

Directions:
1. Flatten biscuit dough on a microwave-safe plate.
2. Spread spaghetti sauce evenly on the flattened biscuit.
3. Sprinkle biscuit with cheese and additional toppings of choice.
4. Microwave for 50 seconds (microwave times may vary slightly) until cheese is melted and inside of biscuit is no longer doughy.
Activity 3: Microwave Veggies
Steaming vegetables in the microwave keeps more vitamins in the food and is often faster than other cooking methods.

Goal:
Learn how easy it is to microwave veggies for a quick, nutritious meal.

Materials Needed:
- Microwave
- Microwave safe plate and cover
- Ingredients as listed in selected recipe
- Serving spoon

Recipe: Baked Potato with Broccoli
Yield: 1 serving

Ingredients:
- 1 medium potato
- ¼ cup grated cheese
- ½ cup broccoli (fresh or frozen)
- Additional toppings optional

Directions:
1. Wash and dry the potato. Poke holes in the potato to vent steam (alternate method: make a deep ‘X’ cut into the long side with a knife).
2. Wrap the potato in a paper towel on a plate and put it into the microwave. When using a 1200 Watt microwave, set the timer to 3:00 for a very small potato; 4:30 minutes for a medium-sized potato; and 6:00 minutes for a large potato. Huge potatoes require 7 to 8 minutes.
3. The microwave should stop before the potato is soft enough for eating and while it is still slightly firm deep inside.
4. Let the potato stand for five minutes. This allows the inside of the potato to finish cooking with the hot steam that is trapped inside; this helps it to become fluffy inside without over-drying the outer portion. Wrapping it in aluminum foil after taking it out of the microwave will speed this up.
5. While the potato is resting, steam the broccoli. Place fresh or frozen broccoli in a microwave safe container, add a tablespoon of water.
6. Cover with microwave safe cover with a small vent, and cook for 3-4 minutes or until the desired tenderness. Most frozen veggie packages include microwave cooking directions.
7. Cut potato in half. Top with steamed broccoli and cheese. The heat from the potato and broccoli will melt the cheese.
8. You can also add your choice of butter; parsley; green onions or chives; sour cream; cheese; crispy bacon, etc.

Activity 4: Zapped Apple

Goal:
Learn how to bake apples in the microwave.

Materials Needed:
- Microwave
- Ingredients as listed in selected recipe
- Microwave safe bowl
- Serving spoon

Recipe: Zapped Apple

Yield: 1 serving

Ingredients:
- 1 medium apple
- 1 teaspoon maple
- cinnamon
- light or fat-free
- or caramel syrup
- whipped cream

Directions:
1. Wash, slice and core apple.
2. Arrange in a bowl.
3. Sprinkle apple with cinnamon, and then drizzle with syrup.
4. Microwave apple on high for 1-1 ½ minutes; add a spoonful of whipped cream on top before serving.

CAUTION!
√ To core an apple with an apple corer: Place the apple on a cutting board. Press the apple corer into the center of the apple (surrounding the core) until you reach the cutting board. Twist the corer and pull it up toward you to remove the core.
√ To core an apple with a knife and a vegetable peeler: Cut the apple in half with a sharp knife, and pry out the core with a vegetable peeler.
What have you learned?

√ What was different about cooking in the microwave compared to a regular oven?
√ What happened that you didn’t expect would happen?
√ What are some of the benefits and limitations when cooking with a microwave?
√ What would you tell someone else that was considering cooking in a microwave?
√ What are other ways that you would like to try using the microwave?

Recipe Sources

√ Utah 4-H
√ Weber County Extension
√ 4-H Fun with Foods by Georgia Lauritzen

References and Resources:

√ Microwave Science at National 4-H video:  
   http://www.youtube.com/watch?v=t0Mv7F9p8O8
√ Microwave Cooking
√ Arizona Cooperative Extension:  
   http://ag.arizona.edu/pubs/health/az1081.pdf
LESSON 5: FOR THE RECORD
Microwave Munchies

MEETING

Date ______________________

Foods I prepared or helped prepare ______________________________________________________

________________________________________________________________________________

________________________________________________________________________________

I demonstrated _______________________________________________________________________

________________________________________________________________________________

________________________________________________________________________________

This lesson taught me the following skills ______________________________________________

________________________________________________________________________________

________________________________________________________________________________

Some of the activities I tried _________________________________________________________

________________________________________________________________________________

________________________________________________________________________________

<table>
<thead>
<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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>