

# 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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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

1 or 2 other kinds of dishes (non-metal)

Water

Plastic dish

Glass measuring cup

#### **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:

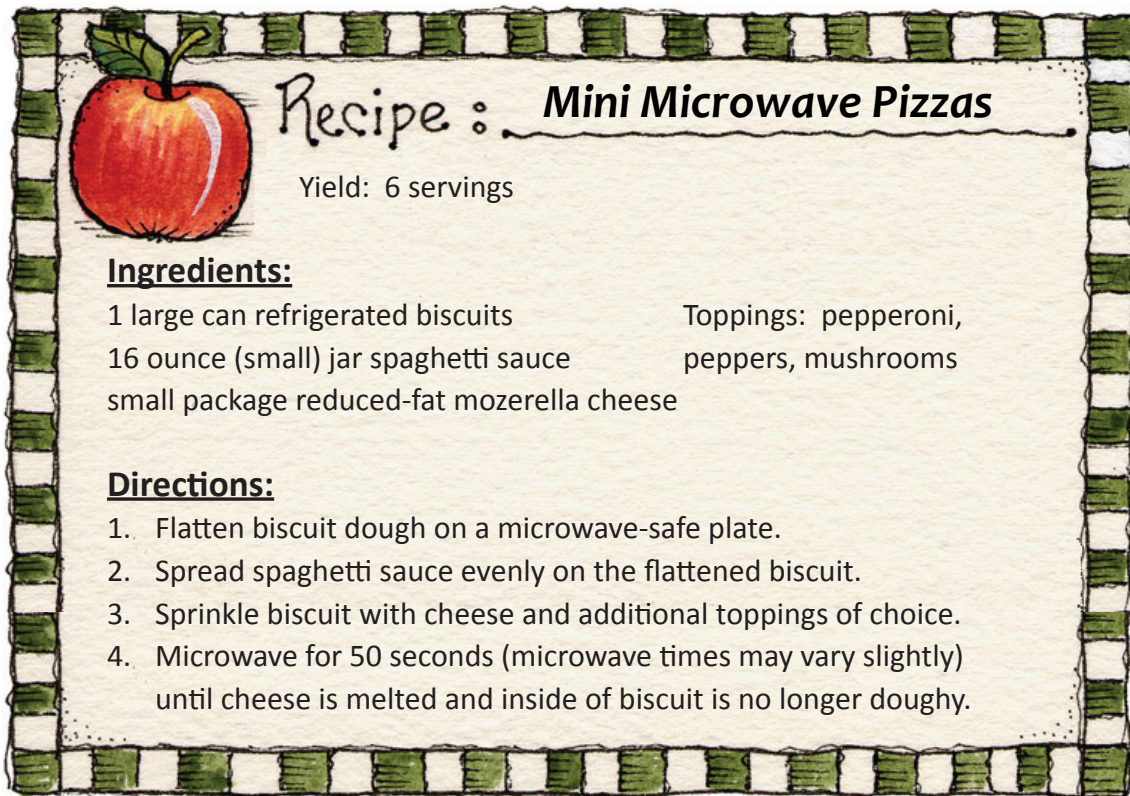
Learn how long it takes to microwave, to melt cheese and cook dough.

### Materials Needed:

Microwave

Ingredients as listed in recipe

Microwave safe plate



**Recipe :** *Mini Microwave Pizzas*

Yield: 6 servings

**Ingredients:**

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

**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

Ingredients as listed in selected recipe

Microwave safe plate and cover

Serving spoon



### Recipe : **Baked Potato with Broccoli**

Yield: 1 serving

**Ingredients:**

1 medium potato	½ cup broccoli
¼ cup grated cheese	(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	cinnamon
1 teaspoon maple or caramel syrup	light or fat-free 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.



### Safety Tip

- ✓ 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 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Type of Food Prepared	# Times Prepared	To Whom Served	Hours Spent	# Served	Cost