

Microwave Match

Directions Today's cooks value the microwave oven's ability to cook many items faster than a conventional range. But, is the microwave oven *always* a time saver? Follow the steps below to see how the microwave oven stacks up against conventional methods for different cooking tasks. Use the chart below to record results. Then complete the Discovery activities.

Cooking Task	Time Using Microwave Oven	Time Using Conventional Method
Boiling Water		
Cooking Frozen Vegetables		
Popping Popcorn		

- 1 Boil water in the microwave oven.** Measure 1 cup (8 fluid ounces) of water into a microwave-safe mug. Place a wooden coffee stirrer in the mug. (This helps bubbles form and prevents the water from boiling over suddenly when the mug is moved, which can be very dangerous.) Put the mug in the microwave oven and set the timer for 1 minute on the highest setting. Check the water after 1 minute. If it has not reached a boil, set it for another 30 seconds on high. Continue checking the water every 30 seconds until it reaches a boil. Record the total amount of time it took to bring the water to a boil.
- 2 Boil water on the range.** Measure 1 cup of water into a small pot and place it on the range. Turn the burner to the highest setting and immediately start a timer. Observe the pot to see how long it takes the water to come to a boil. Stop the timer and record the amount of time it took to bring the water to boil.
- 3 Cook vegetables in the microwave oven.** Measure 1 cup of frozen peas, corn, or other vegetable into a microwave-safe dish. Sprinkle 2 tablespoons of water over the vegetables. Microwave on high for 1 minute and then check the vegetables for doneness. If they are ready to eat, the ice will be gone and the vegetables will be warmed through and tender when tested with a fork. If the vegetables are not ready, continue cooking them for 30 seconds at a time on high. Check them after each interval until they are done. Record the total amount of time it took to cook the vegetables.

(Continued on next page)

CHAPTER 19 Kitchen Equipment Selection and Storage (Cont.) Focus on *Technology*

- 4** ▶ **Cook vegetables on the range.** Measure $\frac{1}{2}$ cup of water into a small pot. Set the pot on the range, turn the burner on high, and immediately start a timer. As soon as the water boils, add 1 cup of frozen vegetables (the same type as in Step 3). Test the vegetables every 60 seconds to see whether they are tender. When they are done, record the amount of time it took to cook the vegetables.
- 5** ▶ **Pop popcorn in the microwave oven.** Place a bag of microwave popcorn in the microwave oven. Start the oven on high and begin timing. Listen for the popping sounds of the corn kernels. Leave the bag in the microwave until the popping sounds slow to a rate of about 3 seconds between pops. Stop the microwave and record the amount of time it took to pop the corn.
- 6** ▶ **Pop popcorn on the range.** Place a large, heavy-bottomed pot (with a lid) on the range. Measure 2 tablespoons of oil and $\frac{1}{2}$ cup of popcorn into the pot. Cover the pot, leaving the lid slightly ajar to allow steam to escape. Turn the burner to medium and immediately start a timer. Gently shake the pot from time to time to prevent the corn from sticking, and listen for the popping sounds. When the popping sounds slow to a rate of about 3 seconds between pops, remove the pot from the heat. Record the amount of time it took the corn to pop on the range.
- 7** ▶ **Analyze results.** From the results of this activity, what do you conclude about the microwave oven as a time saver?

Discovery

- A. More Food Comparisons** You can do the same test as above with other foods. For example, you might try cooking meat or fish in a microwave oven and a conventional oven. You could heat soup and reheat cold pizza. For each food, compare cooking times with the microwave oven and the conventional method. What conclusions can you draw about when the microwave oven is the most efficient way to cook food?
- B. Taste Comparison** Try comparing the taste and texture of foods cooked in the microwave oven with the same foods cooked on the range or in a conventional oven. You could work with fresh vegetables, hot cereal, or cold pizza. After taste-testing the foods, explain in writing how they turned out with each of the two cooking methods.
- C. Frozen Versus Fresh** Some foods are specially designed and packaged to be cooked in a microwave oven. Choose one microwavable food product from the frozen-foods section in a supermarket and prepare it at home. Record the time it took to cook, and evaluate the quality of the finished product. Then prepare a similar dish using a conventional method of cooking and fresh ingredients. How do preparation time and quality of the two dishes compare? How do costs compare? Is the convenience worthwhile?

Helping Children Cook

Directions Small children are often eager to help out in the kitchen. Unfortunately, their “help” can add up to a bigger mess and more work for the older cooks. Fortunately, even young children can handle some tasks. Look at the list of tasks below. Next to each task, write the youngest age or ages for which it would be appropriate: age two, three, or four to five. Then try the Discovery activity.

- | | |
|---|--|
| 1. Beating eggs with an eggbeater _____ | 8. Pouring liquids into a batter _____ |
| 2. Breaking bread for stuffing _____ | 9. Shaking a milk drink _____ |
| 3. Dipping vegetables and fruits _____ | 10. Snapping fresh beans _____ |
| 4. Kneading bread dough _____ | 11. Spreading peanut butter on toast _____ |
| 5. Mashing soft fruits and vegetables _____ | 12. Squeezing oranges and lemons _____ |
| 6. Measuring dry and liquid ingredients _____ | 13. Wiping tables _____ |
| 7. Mixing muffin batter _____ | 14. Tearing lettuce and salad greens _____ |

Discovery

Cooking Together Here is a recipe that children can help to make. The instructions explain which steps you should do and which can be done by a child. Prepare this recipe with a young child. Report to the class on how the cooking experience went.

Crunchy Fruit Salad (4 servings)

- | | |
|-----------------------|----------------------|
| 1 stalk celery | 1 banana |
| 1 apple | 1 orange |
| 1 cup seedless grapes | 1 cup low-fat yogurt |

- Together, wash the celery, apple, grapes, and orange.
- You should dice the apple and celery and cut the grapes in half. Meanwhile, the child can peel the banana and orange. Help the child if the orange is hard to peel.
- You should cut the peeled banana and orange into bite-size chunks. Meanwhile, the child can transfer the cut-up apple, celery, and grapes to a large bowl.
- The child can add the cut-up banana and orange to the bowl.
- The child can pour the yogurt over the top of the fruit mixture.
- Either you or the child can mix ingredients together.