

# Microwave Magic

## Supporting School-Age Accreditation and Quality Programming

**Bag of Tricks** and **Micro Magicians** are appropriate for older school-agers, especially those who can be home alone from time to time. If offered as a long term project the children can learn a lot and develop skills that will demonstrate quality programming offered by the staff. Children will learn some food science and they can prepare dishes to enter in a 4-H county fair, a school science fair or a recipe contest. The children should offer their own ideas about food they want to make.

## Essential Elements of 4-H Youth Development

Youth involved in 4-H know they are cared about and feel a sense of **BELONGING**; they exercise **INDEPENDENCE** by using decision-making and action to influence people and events; they develop a sense of **MASTERY** by learning skills needed in making positive career and life choices; and they experience **GENEROSITY** by helping others through community service. These elements support the Army Youth Development Components of Belonging, Success, Service and Independence.

## Community Service/ Service Learning Opportunities

Maybe the foods that are cooked during the *Microwave Magic* activities can be taken to shelters or given to people who can't afford to buy healthy foods. Skills learned in the activities can be taught to others, either younger children or senior citizens living on their own but needing help. The project participants can make items for bake sales and then use the money to support other service projects.

## Ideas! Ideas! Ideas!



Find guest speakers who are in food service, food science or public health professions. Arrange field trips to the places where these experts work. Have the youth research what training and education is needed to work or teach in these fields. Research recipes and create cookbooks on the Internet. Create food art to enter in 4-H and Boys, and Girls Club of America photography contests.

## Summary

We all need to know how to cook and what to eat to be healthy. Youth may not want to be food professionals but they will feel like a chef when using the microwave to prepare delicious foods for their friends and family. Bon appetit!

## Providing Quality Middle School and Teen Programming

**Micro Magicians**, **Amazing Rays** and **Presto Meals** are for middle school and teen youth. Supporting the youth as they read the guides, do the activities and create activities of their own will provide a quality experience.

## Opportunities for Youth Leadership and Development and Cross-age Teaching

Again the youth should be asked for their ideas about how to use the skills they learn and the food they make in this project. Making their own choices promotes youth development and leadership. Having older youth teaching children the safe way to use a microwave is cross-age teaching that is fun and satisfying for everyone.



# THE Army 4-H EXPRESS GUIDE TO Microwave Magic

This project is all about food and how to prepare it using the microwave. *Microwave Magic* is full of exciting hands-on activities that focus on using the microwave oven to prepare everything from simple snacks to complete meals.



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## Project Goals

*Microwave Magic* is designed to increase skills and knowledge in four major categories: techniques and equipment, healthy food selection, food preparation and meal time magic. There are five guides that are age appropriate.

## Four Fun Activities

**1** Preparing quick and inexpensive snacks or appetizers for friends and family is fun. Chili dip can be made with three ingredients and only takes about 5 minutes. And, there's only one bowl to clean up! Find the recipe in **Bag of Tricks, Chili dip, page 34.**

**2** The way food is arranged in the microwave really does affect how it cooks. **Microwave Magicians, Potato bake, page 10,** shows several diagrams for how to arrange potatoes for the best baking results. It will require 21 potatoes to try all of the arrangements. That's enough for a small crowd, but more people means more fun. There is also a recipe for another potato topping and the youth may have favorite toppings of their own to add.

**3** Making favorite foods into healthy foods can be magical and delicious. The omelet in a mug found in **Presto Meals, Extra bite, page 17,** provides quick nutrition or try one of the healthy cakes on pages 16-18.

**4** Doesn't everyone love desserts? Blueberry tarts can be a simple end to any meal. The directions for the tarts and a tuna noodle casserole can be found in **Presto Meals, Lunch Time, pages 34-35.** The meal contains ingredients from all of the food groups.



## Experiential Learning

Experiential Learning engages children and youth while they learn, share, and grow through their 4-H experiences. With an adult as the coach, the first step is "doing" or exploring. Next, youth share what they did and discuss the experience with their peers. After they've identified the skills and knowledge gained, help them determine how to apply these to other situations in their lives. Each activity in *Microwave Magic* concludes with a section called **Micro Talk** which asks questions related to the experiential learning model.



## Project Activity Guides and Target Age Groups

**Bag of Tricks** is for grades 3-4 and starts with some basic information about using a microwave including power levels and appropriate cooking containers. It also talks about the Food Pyramid and preparing healthy foods.

**Microwave Magicians** is designed for grades 5-6 and teaches more food science – how foods cook differently in containers of various shapes and sizes and how specific foods respond to microwave cooking.

**Amazing Rays** for grades 7-9 includes more complicated recipes that require additional cooking skills.

**Presto Meals** for grades 10-12 includes menus for meals with more ingredients, health and nutrition education, and managing the time for meal preparation.



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## Related 4-H Projects

*Fantastic Foods* is a related project that is not limited to cooking in the microwave. *Food, Culture and Reading* focuses on a variety of cultural traditions as they relate to food. *Health Rocks* is a curriculum for ages 8-12 that includes activities that support good nutrition and healthy choices. An Internet search for *Microwave Magic* will provide more suggestions.



## Integrating Technology

Understanding and successfully using a microwave oven is an example of integrating technology into everyday life. Learning to do more than heat water, pop popcorn and follow the directions on the package requires the understanding and mastery of technology. The Internet is a great place to look for new and inventive microwave recipes. Just search for microwave recipes for kids.

## Character Connection

Character Counts, everywhere...all the time and that means showing others a person of good character respects and cares for their body by eating healthy foods. Using a microwave also conserves electricity and being respectful of resources demonstrates good citizenship.

Additional character resources can be found at:  
[www.4-hmilitarypartnerships.org](http://www.4-hmilitarypartnerships.org).

## Linking to the Army's Four Service Areas and Baseline Programming

### Sports, Fitness and Health Options

There are activities related to Fitness and Health Options in all five guides. A discussion of the Food Pyramid is in the **Helper's Guide** and **Bag of Tricks. Micro Magicians, Once you swallow, pages 14-17,** talks about vitamins and minerals in foods and food health and safety. **Presto Meals** has several lessons on healthy ingredient substitutions.

### Arts, Recreation and Leisure Activities

Cooking classes and demonstrations are recreation for many people. Food preparation can be a leisure activity that involves friends and family. Youth might start by preparing popcorn while they watch a movie or play games. Popcorn recipes are in **Bag of Tricks, Popcorn treats, pages 24-25.**

### Life Skills, Citizenship, and Leadership Opportunities

Approximately a dozen life skills are taught throughout the *Microwave Magic* project. If the youth turn some of the project activities into bake sales, meals for the homeless and elderly or other service projects they will learn leadership skills and give back to the community as good and caring citizens.

### Academic Support, Mentoring, and Intervention Services

There are lots of hands-on science experiments in *Microwave Magic* that involve chemistry, food science and public health that can also apply to school classes. **Bag of Tricks, Awesome apples, page 18,** is just one to try.



## Life Skills

"Skills that help an individual to be successful in living a productive and satisfying life" are identified as Life Skills (Hendricks, 1996). Life skills in this project include teamwork, decision making, critical thinking, mastering technology, processing information, completing a task, making healthy lifestyle choices, practicing creativity, and social skills. Although each activity specifically targets only one life skill, youth have the opportunity to practice several.