

Master Chefs Program Manual



**Healthy Youth Program
Linus Pauling Institute
Oregon State University**



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Introduction

About the Linus Pauling Institute

The mission of the Linus Pauling Institute is to promote optimal health through cutting-edge nutrition research and trusted public outreach. To accomplish this we will:

- Discover basic mechanisms underlying the biology of aging and the causes of metabolic and age-related diseases
- Develop effective approaches to slow aging and postpone metabolic and age-related diseases through diet, micronutrients, and phytochemicals
- Advance the principles of healthy living and healthy aging in the public arena, thereby empowering people everywhere to add years of health and vitality to their lives

Advancing healthspan, not just lifespan, is our passion.

Healthy Youth Program Mission

Empowering youth and their families to achieve optimal health through hands-on education.

The Healthy Youth Program is a wellness and healthy lifestyle program for children (preschool through grade 12) and their families. Most of our programs are based on vegetable gardens, linking a healthy and active lifestyle with a healthy and sustainable environment and providing fresh produce for families in need. We engage children and families through participatory education, hands-on activities, and interactive dialogue. All of our programs are youth and family centered, tailored to their unique needs, and build on the strengths of the participating youth and families for long-term success.

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About the Healthy Youth Program

How it All Started

Providing public education on the role of diet, lifestyle, and micronutrients in promoting optimal health, preventing disease, and increasing healthspan has been a major commitment of the Linus Pauling Institute (LPI) since its inception at Oregon State University in 1996. As part of LPI's public outreach, the **Healthy Youth Program** was founded in 2009. Our goal is to educate children (preschool through grade 12) and families through evidence-based and hands-on activities. Our vision is for a community of healthy, happy and active children and families.

Our Program Philosophy

The **Healthy Youth Program** is a wellness and healthy lifestyle program. For us, wellness and a healthy lifestyle include physical, mental, and social well-being. It is our goal to help children and families improve their dietary intake and increase their level of physical activity. In addition, a central focus of our programs are family and peer relationships and interactions. We believe that children and families don't live in a vacuum – children are part of families and families are part of communities. Therefore, it is important for us to support children and their families to develop healthy family and peer relationships and to grow as individuals to reach their full potential.

Child-Centered and Strength-Based Approach to Working with Youth

Our youth programs are based on a child-centered and strength-based philosophy which focuses on the child's strength and assets – not on the child's weaknesses or deficits. It is our goal to engage in a relationship with each child that allows us to explore areas where a child is functioning well and feels good about him- or herself. Central to our program philosophy is our belief that every child is unique and has personal strengths and assets. The inability to demonstrate an emotional or behavioral skill is considered as an opportunity to learn and grow, not as an inherent failure.

Our programs are designed to help children develop emotional and behavioral skills, competencies, and characteristics that (1) create a sense of personal accomplishment, (2) contribute to satisfying relationships with other family members and peers, (3) strengthen the child's ability to deal with adversity and stress, and (4) promote a child's emotional and social development.

About Master Chefs

Background

Master Chefs provides a safe, healthy and creative environment for middle-school aged students to learn basic to intermediate cooking skills and kitchen safety, while utilizing healthy, fresh ingredients in a variety of ways. The skills they learn are tested during the last class in a competition, where they must work as teams to create healthy dishes to present to a panel of guest judges.

Master Chefs is filled with creativity, teamwork and new cultural experiences. Students learn how to communicate and operate within a team setting while assembling healthy recipes inspired by various cuisines from all over the world. There is a general focus on kitchen safety, culinary terminology and versatility of ingredients.

Goal

Help students learn basic to intermediate cooking skills, work as a team, and develop healthy eating habits.

Objectives

- Teach students about the importance of making healthy food choices
- Teach students to read, follow and prepare a recipe
- Teach students kitchen safety, sanitation, knifing techniques and knife safety
- Teach students basic to intermediate culinary skills and terminology
- Provide an opportunity for students to learn to work as a team
- Engage students in different cultures and their respective cuisines
- Increase students' knowledge of where their food comes from
- Provide new food experiences to students and encourage them to try new things
- Foster a desire to discover and learn through hands-on exploration of new foods and recipe creation
- Engage students in fun teambuilding exercises
- Increase students' problem-solving ability when ingredients are scarce or unavailable
- Allow students to demonstrate their knowledge and creativity in a series of mini cooking competitions, culminating in a larger final competition

Class Information

- Classes are held one day a week for two hours
 - Staff and volunteers are onsite for three hours: class time with students is two hours with a half-hour prep and half-hour cleanup time before and after class with only staff/volunteers
- Sessions can range anywhere from four to six weeks

Participants

- 10-16 participants per class (depending on the size of your space)
- Staff ratios: approximately 1 adult per 5 students
- Ages 11-14 years (middle school aged children)
- Middle school students
 - Are fairly independent
 - Have longer attention spans
 - Have more developed social skills, leading to less behavior-related issues
 - Are more laid back and easy going and don't enjoy silly activities as much; therefore, avoid potential embarrassing situations.
 - Have great dexterity

Suggested Materials:

Shared Kitchen Items	Individual Kitchen Station Items	Activity Supplies
<ul style="list-style-type: none"> ○ Refrigerator ○ Ice trays / Ice machine ○ Blenders ○ Food processors ○ Hand mixers ○ Compost bin (Optional) ○ Recycle bin ○ Trashcan ○ Garbage bags ○ Tupperware containers and/or Ziploc bags ○ Plastic wrap, wax or parchment paper, aluminum foil 	<ul style="list-style-type: none"> ○ Various sizes of pots with lids ○ Various sizes of pans with lids ○ Colanders ○ Grater & Zester ○ Dry ingredient measuring cups ○ Liquid measuring cup ○ Measuring spoons ○ Knives <ul style="list-style-type: none"> - 2 or 3 Chefs knives - 1 or 2 serrated knives - 1 bread knife - 1 or 2 paring knives ○ Cutting boards ○ Mixing bowls ○ Serving trays ○ Cooking utensils <ul style="list-style-type: none"> - 2 standard spatulas - 2 rubber or silicon spatulas - Can opener - 1 or 2 vegetable peelers - Kitchen shears - Whisk - 2 large cooking spoons - Wooden spoon - Slotted spoon - Garlic Press (Optional) ○ Plates, bowls, cups ○ Flatware ○ Napkins ○ Wash rags* ○ Oven mitts ○ Hand towels ○ Hand soap ○ Dish soap 	<ul style="list-style-type: none"> ○ Books about various cultures ○ Recipe books featuring different cultures ○ Laminated maps and cultural facts pages ○ Recipes printed for each group ○ Plastic sleeves for recipes

*Wash rags are used not only for washing dishes, but also for traction underneath cutting boards. Each cutting board being used should have a dampened wash rag spread out underneath to prevent the board from moving during chopping.

Class Structure and Overview

Key Components of *Master Chefs*:

Cooking: At each class, students prepare recipes together under the supervision of staff and interns. Students are involved in all aspects of food preparation including washing the produce, preparing individual dishes, and maintaining a clean and sanitary cooking space. We recommend that you allot time for clean-up after each meal, but a “clean-as-you-go” strategy is encouraged.

General Kitchen Safety: While some students may be familiar with various kitchen appliances, utensils, techniques and their safe usage, others may not. As such, we recommend a comprehensive review of general kitchen safety during the first lesson.

Knife Skills & Safety: Knife skills are emphasized at each class. Students are taught the difference between major categories of cutting techniques: chop, dice, mince, and julienne. Students are also taught how to safely sharpen a knife and are in charge of keeping their knives sharpened. All cutting boards are stabilized by placing a wet cloth underneath, which helps prevent boards from shifting or sliding while they are being used. Good technique is recognized and praised, while unsafe techniques are corrected immediately. Students are informed that general kitchen safety, including knife skills and safety are judged during the Finale Competition, and that any unsafe practices will lead to points being deducted. This provides a strong incentive for students to master the proper, safe skills.

Nutrition: While we prepare healthy meals together daily, we also want to provide nutrition education to the students, so that they can make healthy choices at home and at school—not just at *Master Chefs*! Nutrition education activities might include discussing the MyPlate, energy balance, or eating the rainbow.

Mini-Competitions: Allowing the students to gain independence and easing them into making decisions and taking control of the kitchen are important steps in preparing them for the Finale Competition. Mini-competitions are a great way to introduce this freedom, foster teamwork and evaluate strengths and weaknesses that should be addressed with the group as a whole. Team dynamics can change under the pressure of a competition and it is imperative for staff to keep an eye on groups and remind them that they are judged not only on their dishes, but on their safety and their teamwork. The mini-competitions allow staff to evaluate groups and help to set them up for success during the final competition. See examples below:

- Have teams create a sauce for one of the given recipes (i.e. make your own pasta sauce, sauce for a stir-fry, sauce for a fruit or vegetable dish, pizza sauce etc.).
- Bring in two recipes and allow the students to select and create the third recipe from a given category (i.e. a salad, a side-dish, an appetizer or a dessert)

- Have a scheduled day where teams will likely finish early. Instruct teams to utilize leftover ingredients to make one new dish to present to the staff for a mini-judging.

Preparing for Class

- Select a country that you will be tailoring your two to three recipes to (depending on the level of difficulty and the amount of time required). Please see the appendix for ideas for suggested class themes and suggested recipes.
- Grocery shopping
- Developing nutrition education lesson and printing materials

A Typical Day at *Master Chefs*

- 4:00-4:15 PM
Students arrive and explore cultural items with staff. They can also preview the recipes and ingredients.
- 4:15-4:30 PM
Culinary lesson and recipe review.
- 4:30-5:40 PM
Active cooking time; plating of dishes; clean-up of all dishes except plates.
- 5:40-6:00 PM
Presentation of final dishes; shared meal time; final clean-up and release.

Cooking Competition & Parent Open House

On the last day of class, we host a “Finale Cooking Competition” featuring guest judges. The competition takes place for the entirety of the final class. Each team receives a bag full of “secret” ingredients. The students have used some of these secret ingredients in previous classes, but many of them are new. Each group receives the same amount of each ingredient. Students work with their teams using these ingredients to prepare a variety of dishes which are presented to the judges. During the competition help and advice from staff is minimal.

Scoring - Teams receive one point for including all the ingredients in their dish, and two points for how they have used the ingredients.

Bonus Ingredient – Each team will also receive a bonus ingredient. If they use this ingredient in a dish they can receive one to two additional bonus points added onto their final total score.

Competition Day Format:

- 4:00-4:15 PM
Arrival, competition rule review, secret ingredient reveal, planning time
- 4:15-5:30 PM
Cooking, cleaning and plating of dishes

- 5:15 PM
Parent open house begins
- 5:30 PM
Final call – “Hands-Up,” all food is presented as it is at this moment.
- 5:30-5:45 PM
Judging and awards
- 5:45-6:00 PM
Parent tasting, final clean-up, farewell

Parents and families are invited to come to the final 45 minutes of the competition to watch their students create, cook and plate their dishes. They also get to experience the judging and taste the final products. Awards are handed out after the judging for “Highest Overall Score,” “Best Dish,” and various awards for “Teamwork.” Each student also receives recognition for a major contribution, personal growth or cooking skill they have honed or mastered.

Tips for talking to youth about Kitchen Safety

- Before you get started:
 - Read the recipes together and discuss what you need
 - Wash your hands before cooking or handling food
 - Tie back long hair and roll up sleeves
- When using the stove:
 - Be aware of hot surfaces and pan handles
 - Open hot pots and pans with the lids facing away from you to avoid steam burns
 - Don't use metal spoons to stir food in hot pans: the metal can get really hot!
 - Pour liquid away from you when you drain pasta or other food cooked in water
- When using the oven:
 - Always use two dry oven mitts when you take dishes out of the oven or touching hot pan handles
 - Make sure all group members are aware and safely out of the way before opening the oven
 - Move slowly and carefully when moving dishes into and out of the oven
- When using knives and sharp tools:
 - Stay focused on what you are doing
 - Walk carefully when you carry knives or other sharp objects and be sure to point the blade down and away from you
 - Always use a cutting board when you are working with knives
 - Wash knives as soon as you are done using them; leaving them in the sink can be dangerous
- When using electric appliances:
 - Make sure your hands are dry when you use electrical equipment like blenders, food processors, and hand mixers.
 - Make sure the cord stays on a dry surface and out of the water
- Sanitation:
 - Wash/disinfect surfaces and cutting boards after they have come in contact with eggs or raw meat
 - Always wash your hands right away when you have touched eggs or raw meat and before you touch anything else

First Aid and Handling Emergencies

Basic First Aid Procedures

Injury	Treatment
Nose Bleeds	Pinch nose just below the bridge and tilt head slightly forward
Dehydration	Have student/staff sit down in a cool, shaded area. Apply cool, wet compress to head or neck. Take slow, small sips of water. If feeling better, eat a salty snack.
Splinters	Carefully wash the area with soap and water. Using tweezers, remove the splinter from the area. If the splinter is too deep or difficult to remove, wash and bandage the area and see a physician.
Bruises	Apply a cold compress
Small wounds (cuts, scrapes)	Wash wound, apply antibiotic ointment and bandage
Severe wounds	Have victim sit or lie down, apply pressure to stop bleeding and call 911
Bee stings or other bites/stings	Remove the stinger and apply an ice pack or cold compress to reduce swelling. For other bites/stings, application of hydrocortisone will help reduce itching and an icepack or cold compress will reduce swelling.
Burns: 1 st degree – red, sore, covers small area 2 nd degree – blistered and painful 3 rd degree – skin is white or charred, loss of skin layers	1 st or 2 nd degree: Put burn in cold water, pat dry and cover with clean bandage. Do not break blisters. 3 rd degree: Do not put water on open wound. Do not remove burned-on clothing. Cover the burn lightly and get medical help.

CALL EMERGENCY SERVICES WHEN:

- Bee sting results in severe allergic reaction
- A student or staff member experiences a severe fall (do not move victim)
- A student or staff member has a severe wound (i.e. resulting in extensive bleeding)
- A student or staff member has a third degree burn

FIRST AID KIT SHOULD INCLUDE:

- | | |
|---|----------------------------|
| ▪ Antiseptic | Ice bag or cold pack |
| ▪ Antibiotic spray or ointment | Scissors with rounded ends |
| ▪ Adhesive bandages (various sizes) | Tweezers |
| ▪ Sterile gauze pads | Thermometer |
| ▪ Hydrocortisone cream or calamine lotion | Aspirin |

Outreach and Advertising

Send fliers to all local middle schools, or place ads in school newsletters, and the local Parks and Recreation catalog. Sample flier:

Master Chefs
teen cooking class & competition

- for middle school students, ages 11-14 •
- last day: cooking competition with a panel of judges •

when
tuesdays and thursdays,
4:00-6:00 p.m. on these dates:
nov. 18 and nov. 20,
(no class during thanksgiving week)
dec. 2 and dec. 4,
dec. 9 (competition day!)

where
linus pauling middle school
teaching kitchen
1111 cleveland ave.
cost: \$64

to register
visit lpi.oregonstate.edu/healthyyouth
or call (541) 737-8014
(full and partial scholarships
are available)

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Healthy Youth Program - Linus Pauling Institute

Contact us:
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Fitness & Nutrition

impress your friends...
learn to cook!

Staff Recruitment and Training

Staff

We have at least one Healthy Youth Program staff member present at each class. In addition, we recruit three to five volunteers to assist with the class in order to maintain a ratio of one staff member per five students.

Volunteer Recruitment: Sample Posting

Description: *Master Chefs* is a youth cooking class for middle school students ages 11 to 14 years old. Youth will explore recipes from around the world, cook with “mystery” ingredients, and the last session will feature a cooking competition with guest judges. OSU Students Volunteers will provide support for a small group of students at each class.

We are looking for applicants who:

- Enjoy working with middle school-aged children
- Enjoy cooking and are excited about new foods
- Are energetic, enthusiastic, reliable and patient
- Have a positive attitude and a creative spirit

To apply:

Prepare the following application packet, including the following forms (found on our website):

- Cover letter
- Resume
- Volunteer Application
- Conditions of Volunteer Service
- 3 Reference Forms (these may be professional or personal in nature)

**Include relevant information regarding dates, times, location of the class.*

Training

We host our volunteer training the week prior to the start of the class. Training is hosted during the time when *Master Chefs* would normally be held (e.g. Tuesday from 4:00 to 6:00 PM).

Volunteer training should include:

- A review of youth safety
 - Mandatory reporting
 - Cooking safety
 - Basic first aid
- Familiarizing all volunteers with the space
- Working through scenarios related to:
 - Kitchen safety
 - Food preparation
 - Behavioral challenges
 - Mandatory reporting

APPENDIX

Helpful Links

- Healthy Youth Program website: <http://www.lpi.oregonstate.edu/healthyyouth>
- Sample lesson plans with recipe ideas: <http://lpi.oregonstate.edu/healthyyouth/master-chefs-lessons>

Suggested Class Themes

Class themes help guide the preparation and development of lessons and recipes. Any country can be used. An emphasis is always made to select healthy recipes from whichever culture is chosen. Below are some ideas:

- Culture & Cuisine of Indonesia
- Culture & Cuisine of El Salvador
- Culture & Cuisine of the Pacific Northwest
- Culture & Cuisine of China
- Culture & Cuisine of Mexico
- Culture & Cuisine of Spain
- Culture & Cuisine of Thailand
- Culture & Cuisine of Japan
- Culture & Cuisine of Italy
- Culture & Cuisine of Hungary
- Culture & Cuisine of Vietnam
- Culture & Cuisine of Norway
- Culture & Cuisine of “Student’s Choice”

Culinary Terminology & Techniques

Different culinary terminology and techniques are featured each class as the recipes require. The terminology is defined and written out and the techniques are demonstrated. Certain specific techniques may be highlighted (like how to best peel a tomato).

Chef de Cuisine – (*Head Chef, Executive Chef, Master Chef*): The chef who is in command of the kitchen as a whole. This chef is often the person who determines the menu and recipes used.

Sous-Chef: The second in command under the Chef de Cuisine.

Chef de Partie: A Chef in charge of a particular area or station of the kitchen (i.e. Pastry Chef, Sauté Chef, Vegetable Chef).

Mise en Place: Meaning “Everything in place,” refers to the preparation and organization of ingredients and equipment.

Know-Your-Knives: Describing and showing the different types of knives and what they are each most effectively used for:

- Chef's Knife – Most used for any variety of chopping.
- Santoku Knife – A variety of a Chef's Knife
- Paring Knife – Most used for smaller, more detail cutting, like cutting cores from fruits.
- Serrated Knife – A specific edge to a knife that has many sharp teeth. These knives are best used for products with tougher exteriors and softer interiors (i.e. tomatoes).
- Bread Knife – Most used for slicing through breads and other baked goods using a sawing motion.

Rough Chop: To cut into large cubes, about 1-inch square or larger. These cuts are usually not as even.

Chop: To cut into medium cubes, generally about ½-inch to ¾-inch square. Evenness is desirable.

Dice: To cut into small cubes, generally about ¼-inch square. Evenness is desirable.

Mince: To cut into tiny pieces, generally about 1/8-inch square or smaller. Evenness is desirable.

Julienne: To cut into thin strips, generally about ¼-inch wide and 3 to 4 inches in length.

Recipe Timing: Ensuring that your dishes are prepared in the right sequence in order to have your complete meal served at the same time, correct temperature and correct doneness.

Taste Testing: Tasting your dishes during and after preparation to ensure correct flavor combination & temperature prior to serving.