



4-H Youth Development

Cooking Over Campfire Coals

Nothing seems to make food taste better than cooking it outdoors. And the experience can be an excellent learning opportunity for your entire 4-H club whether it is a simple one-pot cookout in the backyard, several cookouts, or a club campout.

An outdoor cooking activity can be used to achieve many of the 4-H program goals to help youth.

- Learn practical skills (cooking a meal without electricity or gas)
- Acquire positive self-attitude (building a fire without help)
- Develop leadership capabilities (volunteering to be in charge of the cookout)
- Develop abilities to be a responsible group member (“we’ll make the salad”)

Above all, the cookout should be fun—and that starts with organization.



Where to start

“Different strokes for different folks.” One leader gets her club started by giving suggestions on when to plan a cookout. Her club’s cookouts have been planned as part of a farm tour, evening club meeting, kidnap breakfast for new members, family night, or program on nutrition or fire safety. Another leader starts by inviting his club over for an evening meal at which he demonstrates all the wrong ways to plan a backyard cookout.

Regardless of the approach, members need experience practicing basic cooking skills and planning tasty, nutritious menus at their own ability level. As they become more skilled, the menus can be more challenging.

Getting organized

A cookout is likely to be successful if you are organized and have planned ahead. Here are a few pointers to get started.

1. Think about what you can do if there’s a heavy rain or storm. Will you postpone? Will you prepare the food under a tarp, in a sheltered area, or move indoors, or postpone? Do you have food along that would require little or no cooking?
2. Make lists so that nothing is forgotten. Here are some things you might include.

- Menu
- Food ingredients and amounts that are needed

- Recipes and directions for preparing the food
- Equipment needed for preparation, storage, and cleanup
- Jobs and assignments that need to be made—consider how much experience is needed and whether the task needs a single person or a team.

3. Be sure that a safe water source is available for drinking, cooking, washing hands, and cleaning up. Check the water's safety before your cookout or carry in your own water.

4. Test new recipes or suggestions before springing them on the whole group. You'll be able to be more helpful if you've tried the ideas first.

5. Make a realistic plan for the time you have available.

6. Prepare for the unexpected. Ask club members to help make a list of fire safety reminders. Here are some ideas to get you started.

- Remember “stop, drop, and roll.”
- Be careful of loose clothing and open jackets.

Campfire cooking checklist:

- Matches
- Spray bottle
- Hot pads/mitts
- Cooking utensils
- Hand washing supplies
- Dishwashing supplies
- Eating utensils
- First aid kit
- Bug spray

Planning outdoor meals Nutrition

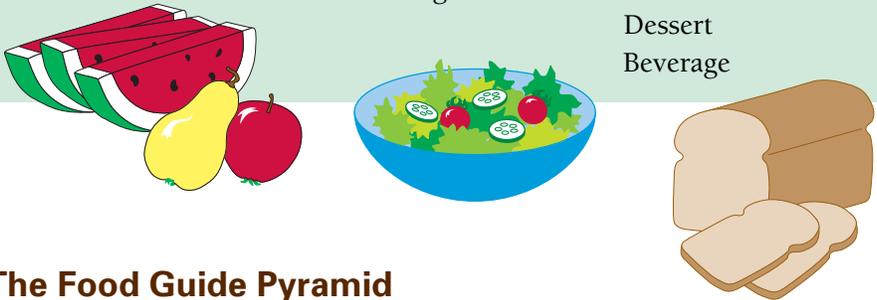
Think color and variety when planning meals for outdoors. Try to include a serving from each of the food groups in MyPyramid (one from each color band). Choosing an assortment of colors among the fruits and vegetables provides a variety of flavors and nutrition to your meals. Appetites seem to increase with outdoor

activities, so people may want more than one serving.

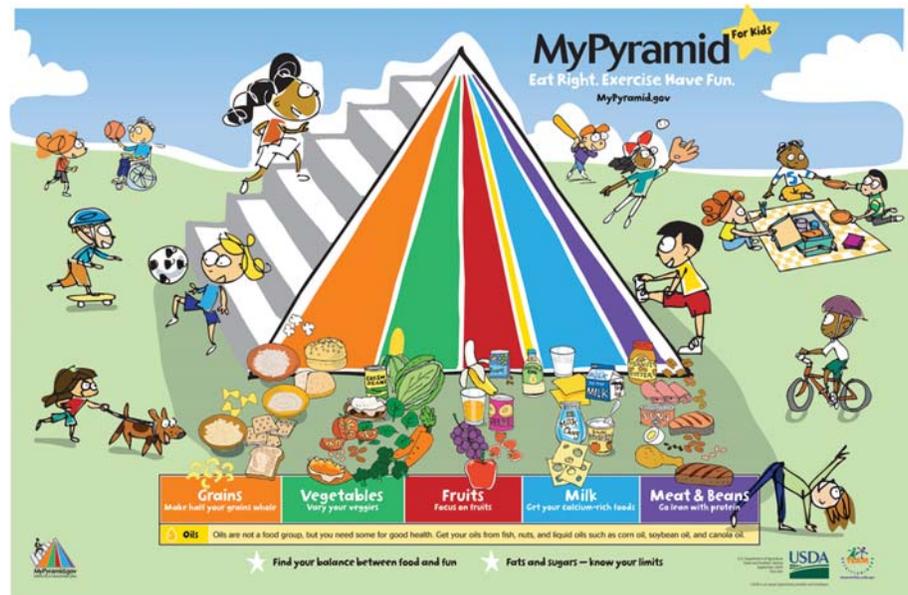
Members can help in the planning. They will want to include their favorites. Encourage them to include some foods that are less familiar also. Look in magazines or special outdoor cookbooks for ideas.

These menu patterns can be a guide when planning.

<p>Breakfast Fruit Protein Food Bread or Cereal Beverage</p>	<p>Lunch Main Dish Vegetable Bread Dessert Beverage</p>	<p>Dinner Meat or Main Dish Vegetable Vegetable or Fruit Salad Bread or Grain Dessert Beverage</p>
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The Food Guide Pyramid A Guide to Daily Food Choices



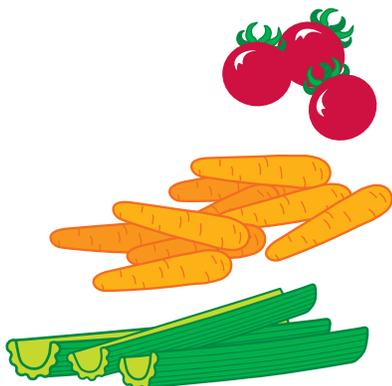
Manage time and money

When you plan meals, consider the time you have available. Baked beans in a Dutch oven may take hours when you have only one or two to spare.

Pudding mixes, biscuit mixes, cake mixes, and cocoa mix can save time, but some convenience foods may be too expensive for your budget. For example, freeze-dried meals may be too costly for a whole group, but you might want to prepare one as a tasting sample. Nonfat dry milk powder is a handy, low-cost ingredient for pudding that is also lightweight and easy to carry.



Unless you have plenty of time and fuel, don't plan to cook the entire meal. Besides, hungry people may like to munch on something like crisp vegetables while the food is cooking.



Sanitation safety

The first rule of food safety is to keep hot foods hot and cold foods cold. If your menu calls for perishable food ingredients, be sure to keep them cold until they are used. Insulated bags and ice chests are necessary.

Perishable leftovers like meats, cooked egg dishes, and most dairy products are hazardous if they can't be chilled. Plan meals to avoid leftovers, or discard the leftovers.

Take packaged handwipes or provide water, paper towels, and soap for hand washing as the food is prepared and eaten. Also remember to bring a kettle for heating water and dishwashing liquid for cleanup.

When you're through cooking

Be sure the fire is out. Spread the coals and sprinkle with water. (It takes less water to put out a fire by sprinkling than by pouring it on.) No fire is safe to leave until you can place your hand directly on the ashes. Do not bury live coals! They may cause underground fires, which creep out in unexpected places.

Be sure the cooking site is as clean, or cleaner, than it was before you used it. Carry away all garbage.

Research

For more information, check the World Wide Web or your local library.

Activities to make outdoor cooking fun

A variety of other activities can be planned as part of the outdoor cookery experience. Here are some possibilities.

- Make a scrapbook of favorite club cookout recipes.
- Look for convenience foods in the store and compare prices.
- Have an outdoor cooking contest.
- Invite guests for a sunrise, outdoor breakfast.
- Experiment with pioneer recipes.
- Visit a historical site or festival where outdoor cooking is demonstrated.
- Learn about wild edibles and make a salad or herbal tea.
- Attend a wild game dinner.
- Challenge members to prepare a cookout fire using only one match.
- Plan a winter cookout.
- Surf the Web and collect outdoor cooking information.

Building the fire

For the beginner, the first step is learning to build a fire properly. Successful outdoor cookery calls for glowing coals, not active flames. The coals give off even heat. You may be an “old hand” at building campfires, but here are some practical suggestions.

1. Select an open spot, away from trees, dead leaves, or anything that may easily catch fire.
2. Start with a crumpled piece of paper or handful of tinder.
3. Arrange very small twigs or sticks in teepee fashion. (Do not use leaves; they smother the fire.) Lay the sticks so that plenty of air can get through the spaces between them.

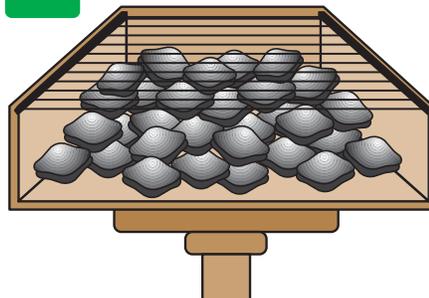
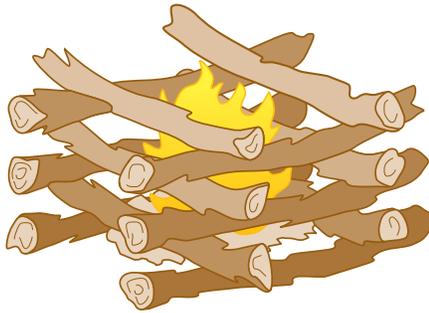
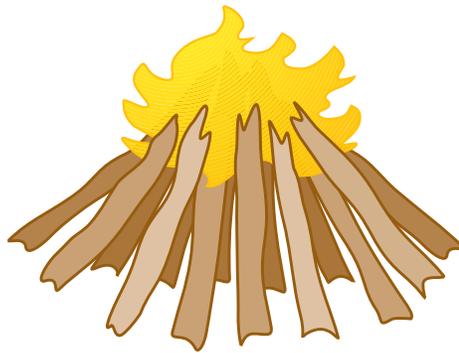
For a teepee fire—After the small twigs begin to burn, add larger sticks the same way you did the small ones. A teepee fire burns quick and hot, with the flame directed to one spot.

For a log cabin fire—Build larger sticks in log cabin style around the kindling. This is a long-burning fire but takes longer to get started.

For a charcoal fire—This fire is easy to light. If you have never used charcoal, follow this plan.

1. Place the charcoal under the rack where the food is to be cooked.
2. Add crumpled newspaper. Light the newspaper.
3. When the coals begin to turn white or glow, they are ready. Stir the hot coals with a long, thick stick or an iron rod to distribute the heat more evenly. Add food onto the rack.

If the coals flame from fat dripping into the fire, sprinkle with water. A spray bottle is handy to use.



Choose your firewood

The kind of fire also depends on the kind of wood you use. Avoid wood with a pithy center. It does not burn easily, and gives little heat. Use split logs rather than round, smooth ones. They burn more readily.

Soft woods (pine, spruce, cedar, aspen, basswood, and birch) burn quickly and leave ashes but few coals.

Hard woods (oak, ash, hickory, apple, walnut, cherry, maple) burn slowly and provide excellent coals for baking or toasting.

How hot to build the fire

Beginners often ask how hot to build a fire. A quick rule of thumb is to hold your hand palm-side down at about the position the food will be above the fire and count (one-thousand-one, one-thousand-two, etc.).

If you can hold your hand for 6 seconds or more, it is a slow fire; 5 seconds is a medium-slow fire; 4 seconds is a medium fire; 3 seconds is medium-hot; and 2 seconds is a hot fire.

Most foods are best cooked over a medium fire.



Planning outdoor meals

Any method used for cooking indoors also can be used outdoors. Foods can be baked, barbecued, braised, broiled, roasted, fried, steamed, or stewed. However, it may be more challenging to get the same quality as is possible with indoor appliances. Cooking times also will be more variable. On the other hand, the smoky flavor from cooking outdoors is something that can't be duplicated indoors.

Cooking equipment—either made or purchased—can range from green sticks to tin cans and reflector ovens to Dutch ovens and grills. Here are a few suggestions for using some different types of containers and equipment. You'll find many others in current outdoor magazines and on the World Wide Web.



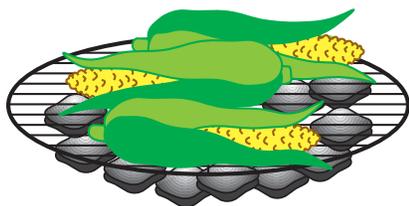
Cooking on a grill

Meats, fish, poultry, and some bread products can be cooked directly on the grill. Foods on or in foil, or in pots and pans, also may be cooked on the grill. Cooking speed can be controlled by adjusting the distance between the food and the coals and by the number of coals.

Grilled Roasting Ears

Turn back husks of sweet corn, and strip off silk. Lay husks back in position and line up on grill over hot coals.

Turn ears frequently using long-handled tongs and cook for 15 to 20 minutes or until husks are dry and browned. (Corn will look "suntanned." For browner, sweeter corn, continue roasting to suit own taste.) To serve, break off husks. Serve with butter, salt, and pepper. For even more zip, sprinkle with lemon juice.



Cooking on a stick

Combinations of meat and vegetables, fruits, and even breads can be cooked on a skewer or stick. It is dry heat cooking and is much like using a rotisserie indoors. Hold the food near the coals and rotate until it is evenly cooked. Metal skewers, green sticks, wood dowels, and straightened metal coat hangers may be used. Cooking is controlled by the distance of the food from the coals and the amount of rotating.

Supper on a Skewer

Cut 1 pound of big bologna or wieners in 1-inch chunks. Cut ½ pound of Swiss or other cheese in 1-inch cubes. Cut big dill pickles in 1-inch slices.

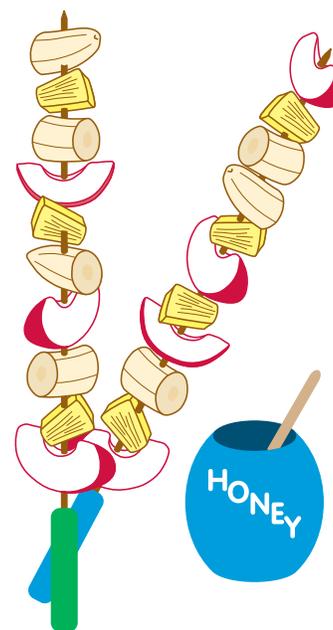
Alternate meat, cheese, and pickle on oiled skewers or sticks. Baste with a commercial barbecue sauce or sauce made from the recipe below. Roast over coals for about 15 minutes, turning frequently. Makes 6 to 8 servings.

Homemade Barbecue Sauce

Combine 1 cup chili sauce or catsup, 2 tablespoons French dressing, 2 teaspoons vinegar, 2 teaspoons prepared mustard, and ½ teaspoon Worcestershire sauce. Heat to boiling.

Fruit Kabobs

Cut a variety of fresh or canned fruit (except melons) into uniform pieces. Thread fruit on long skewers. Blend 1 cup honey and 1½ tablespoons lemon juice. Brush over fruit. Grease grill to prevent sticking if these are placed on grill rather than held over fire. Heat over medium fire, brushing occasionally with butter. Avoid scorching. Serve with remaining honey mixture.



Cooking in a Dutch oven or skillet

These utensils may be used for a variety of cooking methods—frying, roasting, baking, braising, and stewing. The cast iron helps to provide even heat. Number of coals and placement of the coals control cooking speed. Coals can be placed around the Dutch oven and on top of the cover, if desired. The Dutch oven may even be buried with some coals for slow, even cooking.

Skillet Biscuits

Melt $\frac{1}{4}$ cup butter or margarine in a heavy 9- or 10-inch skillet on grill. If desired, sprinkle with garlic powder, onion salt, or paprika. Prepare biscuit dough according to package directions (or use refrigerated biscuit dough from a tube).

Pat to $\frac{1}{2}$ -inch thickness. Make into 12 biscuits. Arrange in skillet, turning biscuits to coat both sides with the butter. Cover skillet with lid or heavy aluminum foil.

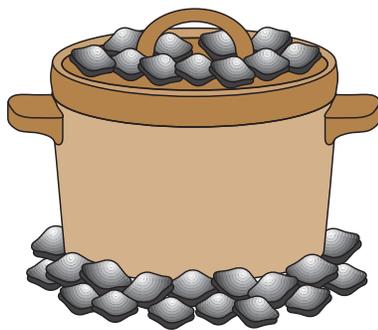
Place on grill 4 inches from medium-hot to hot coals. Bake 8 to 10 minutes. Check often to be sure biscuits do not burn. Bake for 5 minutes longer or until done. If desired, biscuits can be turned so they brown on both sides. Makes 12.



Graham Cracker Cherry Pudding

20 graham crackers, crushed
 $\frac{1}{2}$ cup chopped nuts
 $\frac{1}{4}$ cup butter or margarine, softened
2 tablespoons sugar
1 can cherry pie filling

Line bottom of Dutch oven or skillet with aluminum foil and butter well. Blend crackers, nuts, butter or margarine, and sugar. Sprinkle $\frac{2}{3}$ of this mixture on bottom of foil-lined Dutch oven. Cover with cherry pie filling. Sprinkle with remaining crumbs. Cover and bake 20 to 30 minutes or until heated through. Makes 8 to 10 servings.



Cooking in coffee cans

These are “one-trip” utensils. Because of the difficulty of cleaning the cracks and crevices, discard them after one use. These may be used for baking, broiling, stewing, or braising. Since the metal is lightweight, it is more difficult to control the heat.

Dinner-in-a-Can

1 pound ground beef
4 tomatoes, sliced
1 can (15- to 17-ounce) whole kernel corn, drained
Butter or margarine
Seasonings: pepper, salt, dried oregano, garlic powder

Optional

1 cup buttermilk baking mix
 $\frac{1}{3}$ cup milk

Shape meat into 4 patties. Grease 4 two-pound coffee cans. Place a patty in each can. Top each with 1 sliced tomato and $\frac{1}{4}$ of the corn. Dot with butter or margarine and add seasoning. Cover each can with heavy aluminum foil. Place cans on grill 3 to 4 inches from hot coals. Cook 20 to 30 minutes. If desired, remove foil and drop in spoonfuls of batter made from baking mix and milk. Cook uncovered for 10 more minutes, then cover with foil and finish cooking 10 additional minutes. Makes 4 main dish servings.

Campfire Fondue

In a small saucepan, heat 1 cup (11 ounces) condensed cheddar cheese or nacho cheese soup and 1 cup shredded Swiss cheese until cheese is melted. Stir frequently to prevent sticking. To eat, place cubes of French bread or bagels on sticks or fondue forks. Dip into hot cheese mixture. Makes 4 servings.

Cooking with aluminum foil

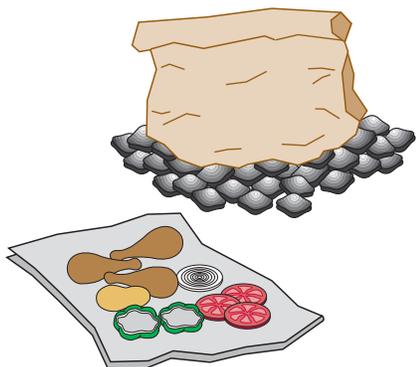
Meals can be cooked in aluminum foil packets. Makeshift cooking utensils can be made for baking, braising, broiling, and steaming foods.

Chicken-in-the-Garden

For each person, tear off a 40-inch length of aluminum foil and fold in half. Just off center, place 2 or 3 pieces of rinsed chicken, 1 peeled potato, 1 tomato, 1 sliced onion, and 2 green pepper rings.

Sprinkle with 2 tablespoons instant rice, 1 teaspoon Worcestershire sauce, dash of salt and pepper. Dot with butter.

Fold foil into a packet. Cook over glowing coals about $1\frac{1}{4}$ hours, or until chicken and potatoes are done. Turn package about every 20 to 30 minutes.



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Baked Shoestring Potatoes

4 medium baking potatoes
3 tablespoons butter or margarine
 $1\frac{1}{2}$ teaspoons salt
Dash of pepper
 $\frac{1}{2}$ cup grated cheese
 $\frac{1}{4}$ cup milk

Cut a 48-inch length of aluminum foil and fold in half. Scrub or peel potatoes; cut them into thin lengthwise strips as for French fries and place just off center on the foil.

Dot each with butter; sprinkle with salt, pepper, and 2 tablespoons cheese. Pull edges of foil upward, then pour 1 tablespoon milk over the potatoes.

Make foil into a packet. Cook over glowing coals, about 1 hour or until done.

If desired, fold back edges of foil and sprinkle potatoes with extra cheese. Makes 4 servings.



Camper's Pizza

1 cup buttermilk baking mix
 $\frac{1}{3}$ cup milk
Bottled or canned pizza sauce (about 14 ounces)
1 package ($3\frac{1}{2}$ ounces) sliced pepperoni or other cooked meat
8 ounces shredded mozzarella cheese or other cheese
Dried oregano

Using baking mix and milk, prepare biscuit dough as directed on a box of buttermilk baking mix. Divide into 4 equal parts. Pat each part into an 8-inch circle (or use English muffin halves). Place circles on a greased grill 5 inches from medium coals, or place dough on a sheet of aluminum foil on the grill. Cook until lightly browned underneath. Turn each circle over and spread with sauce; top with the meat, cheese, and oregano. Cook 12 to 15 minutes longer or until sauce bubbles and edges of dough are browned. Makes 4 servings.

... and justice for all

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