

Preschoolers' Food Handling Skills—Motor Development

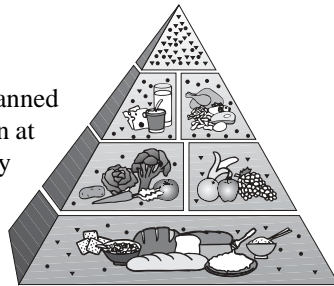
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Food activities provide the chance to learn many skills useful for a lifetime. For the preschooler, food handling skills need to be tailored to muscular development and coordination. The activities listed are for two- to five-year olds—the beginning level is for two-year olds while the highest level is for five-year olds.

Older children with no food handling skills might best start at Level I and progress to Level IV in order to build on skills and experiences. Older children will probably progress at a much faster rate and accomplish in six months what a preschooler does over a period of years. Progression will depend on coordination and developmental skills, familiarity with handling equipment, safety and sanitation practices, and previous experiences.

Types of Experiences

Food experiences should be planned as part of the total day's food plan at meals or at snacks. Too many children's cookbooks are based on high energy snacks or empty calorie treats. If children learn to expect pie, cake, cookies and sweets as desserts and snacks, to prepare starchy or sweet foods for cooking experiences, and to be rewarded with candy for good behavior, too much importance becomes attached to these foods. Plan experiences based on nutrition and calories. Remember, even nutritious choices can add up to be extra calories.



The experiences are teaching skills and choices that should be useful for a lifetime. The child will learn how to take responsibility in food preparation and will learn the basis for many kinds of decisions. The family will not have to be a slave in food preparation and in making food choices for the child forever.

The child will also be learning what fresh foods look like, smells and colors of food, and what happens to shapes and textures in cutting, grinding, mixing, and cooking.

While children are learning food handling skills, they will be

learning socialization skills in getting along with others. They will learn about talking and listening to others. They will learn about sitting still on the floor or at the table in a group to work with food or to share in tasting. They will learn about taking turns at the meat grinder, sharing equipment, and working together as a team or independently. They may help hold a dish or participate in scrubbing the table or work surface.

Children also are learning about adults—what roles adults take, how to work and talk with adults, and what jobs are the responsibility of adults.

Most of all, the children are learning by doing. Not only are they gaining skills in food preparation and in food choices, they are learning a process by which to figure things out. They are developing independence and learning to think for themselves.

Supervision

Any new food handler needs supervision at any age. It is the responsibility of the adult to be present and not out of the area. Plan the number of supervisors for the number of children present and the complexity of the task being undertaken. For example, the first time sharp knives are used with preschoolers, one adult for every two children would be best. Decisions will be based on how well the children respond to directions, previous skills in the kitchen, and the difficulty of the task.

Supervision means giving positive, not negative, directions. Instead of saying, "don't do that," state the correct procedure and the reason, or—in an emergency—say, "STOP." Hints on how to do something give the child a way to check if the job is getting done correctly, so the task can be accomplished successfully.

Supervision also means clarifying the adult's job and the child's job. Let the young child know that adults work with hot pots and pans or sharp or heavy equipment. Also, be sure to add the reason why. Explanations help children identify tasks within their capabilities and should prevent hasty, incorrect decisions when the adult is not looking or not present.

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I. Big Muscles—Arm (2 years)

The two-year old has many things to learn about coordinating muscles to get a job done. The two-year old can most easily learn to do food handling tasks which require the big muscles of the arms and legs.

Scrubbing

Using the arms to scrub table tops or work surfaces or to scrub vegetables will be beginning level skills. The children will also be using leg muscles as they bend to scrub the table top, as they stand on a chair at the sink to scrub vegetables, or as they push a mop to wipe up spills. Brushes or sponges are easier for the child to handle than is a cloth.

Having plastic aprons or dry clothes available would be helpful for the very enthusiastic scrubbers.

Brushes or sponges can easily be used with vegetables such as carrots or potatoes or on table tops. Motions are not as important in getting the job done. Arms can go in circular or back and forth motions. Gradually the child will learn to check that the surface is clean and to decide which motion works best.

Another form of water play is helping to wash dishes. The adult might need to do some presoaking and assign the child dishes that do not break easily

and can easily be handled by the child.

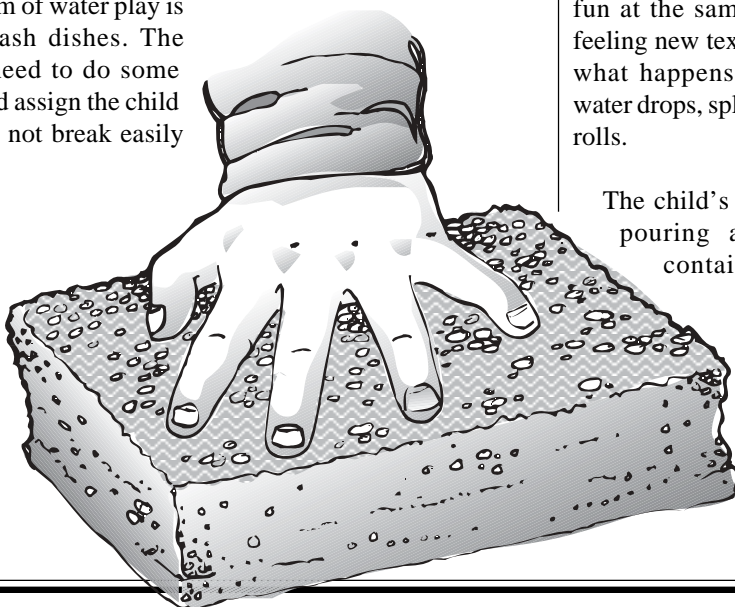
These skills also prepare the child for standards of cleanliness when handling food. The child will learn about food safety and washing hands, equipment, and surfaces when working with food.

Tear-Break-Snap

Tearing, breaking, and snapping illustrate manipulative activities with vegetables—tearing lettuce and greens for salad; breaking cauliflower, carrots, or bananas for snacking; or snapping green beans for cooking. The child will be learning to identify textures and shapes and to compare big and small, whole and part, inside colors and outside colors. They will also be tasting many new flavors and enjoying many new crunchies.

Dipping

Use fresh fruits and vegetables from tearing, breaking, and snapping. Dip into cheese spread, yogurt, peanut butter, or other kinds of dips.



II. Medium Muscles—Hand (3 years)

Following food tasks which are based on the coordination of big arm and leg muscles, emphasis can turn to coordination of hand muscles. Fine motor skills of the wrist and fingers will come later.

Wrapping

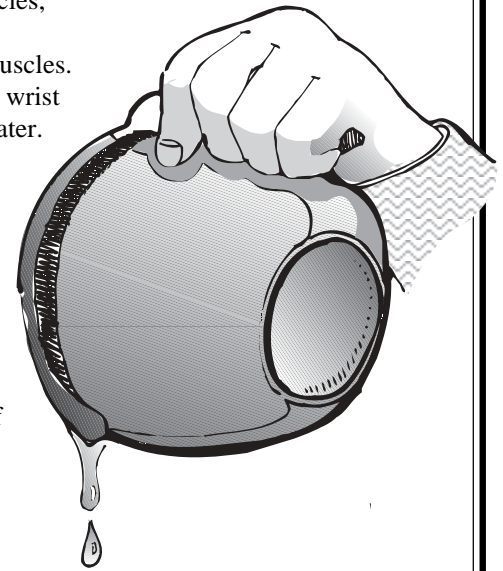
The child is learning skills of dividing and folding and covering an object so that it cannot be seen. Scrunching will result in wrinkles and parts of the food still showing. Some experiences are wrapping

- apples, corn, or potatoes in aluminum foil for baking
- pastry or biscuit dough with a filling for baking
- biscuit dough on a stick for cooking over a fire

Pouring

Early pouring experiences begin with water at the sink, in the bathtub, or in a plastic tub or with sand in the sandbox in the yard. Pouring water into the tub water or pouring from one container to another are good experiences to develop wrist and finger coordination. These are activities where spills don't matter. The children are having fun at the same time they are feeling new textures and seeing what happens as the sand or water drops, splashes, slides and rolls.

The child's initial efforts at pouring are to fill the container to the rim.



The result is many spills. To help prevent spills, mark the drinking glass or container with a rubber band or waxed pencil to indicate how full the glass should be and when to stop pouring. Use a small pitcher for pouring. Instruct the child to hold the pitcher with one hand on the handle and the other hand under the spout to guide the flow of the liquid.

Milk or juice for snacks or meals will be everyday events when the child will want to practice pouring skills. Limit hot beverages because of the ease of spilling at this age and the possibility of burns. Another activity is filling popsicle molds. The molds can be plastic ones specifically for popsicles or they can be improvised from small paper cups with straws or popsicle sticks for handles.

- watermelon without seeds whipped in a blender or mixer
- fruit juice, single or mixed flavors
- pudding (add a little extra milk)
- yogurt (add fruit juice for flavor)
- applesauce

III. Small Muscles—Fingers (4 years)

Mixing

Start with a container twice the size of the mixture to be mixed. First mixing efforts might be with clean hands instead of wooden spoons or rubber scrapers or jars with lids. The child feels the texture of the mixture and the thickness of the dough while using the hands to mix yeast bread. Wooden spoons might be the next step and best introduced with batters that are easy to mix as opposed to stiff peanut butter, cheese, or yeast dough mixtures. To prevent slipping, place a damp cloth under the bowl or have another child help hold the bowl. While the children are developing mixing skills using the hands, they also are learning that there is more than one way to do a job.

Cereal Snack Mix: Pour 1 cup each of 3 ready-to-eat cereals, small pretzels and peanuts into a large pan to help prevent spills from child's mixing efforts with a wooden spoon. Add 1 tsp. celery salt, 4 tsp. Worcestershire sauce and 1/3 cup melted butter or margarine. Use hands to mix everything together. Bake at 300 degrees F for 30 minutes. Stir with wooden spoon every 10 minutes.

Shaking

Use small jars—one for each child—about the size of babyfood jars. Show the child how to put one hand under the jar to hold and the other on the top over the lid. As the child

practices shaking the jar, show how to push up from the bottom, while holding firmly onto the top—and vice versa.

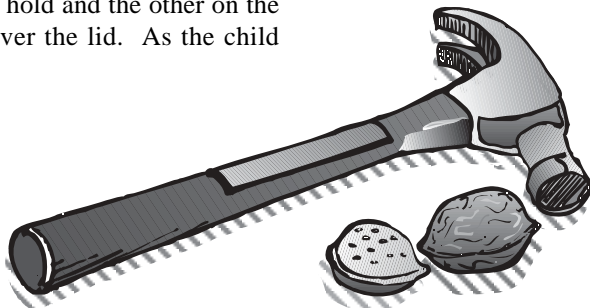
- Butter and Skim Milk: shake whipping cream
- Banana Milkshake: 1 part mashed banana to 2 parts milk
- Orange Milkshake: 1 part orange juice to 4 parts milk

Spreading

Children's first impulse will be to push down bending the wrist with all fingers tightly around the handle. Show each child how to place the thumb and index finger to guide the knife gently across the surface. Talk about handling knives and spatulas for spreading. Sharp objects are not for play. They should be used at the work area with no pushing, shoving, or roughhousing. Show how to pass knives or sharp objects to others and talk about safe storage of knives.

Cracking Nuts

A hard floor and a child size hammer for cracking nuts and coconuts provide an activity that uses a lot of energy. Both hands on the hammer will help prevent bruised fingers.



Using the fingers in food tasks is a pretty technical skill. When sharp blades are involved, eye-hand-finger coordination is very important. Previous experiences of coordinating action to get the job done will be helpful.

Peeling

Using the fingers to remove outside coverings of food is a good way to begin since sharp equipment is not involved. Children can practice the skills required of the fingers in order to get the job done.

- Shucking corn, shelling shrimp, peeling cooked eggs or oranges
- Make egg or orange or shrimp salad using the previous skills of mixing and spreading

Rolling

Cookie dough is often the obvious and therefore most used example of using the hand to roll a round ball. However, in order to avoid cookie freaks, try other recipes with children such as meatballs or cheeseballs. The usual technique for children is to want to flatten the food between their hands or on the table. Show children how to move hands in different directions in order to make a round shape.

Frozen Banana Circles: Spread 1 or 2 inch banana pieces with peanut butter. Roll in crunchy cereal. Freeze.

Crunchy Cereal Balls: Combine 3 parts peanut butter with 1 part orange juice. Mix with 1 part chopped dried fruit or raisins and 2 parts crispy cereal. Chill.

Meat Balls: Use any recipe that the children can prepare, mix together, and then try their skills at shaping.

Juicing

Put a wet cloth under the juicer to help keep it from moving. Have the child put one hand on the juicer and the other hand on top of the citrus fruit. The top hand pushes down and rotates the fruit half at the same time. Roll citrus fruit on the table first to make the juice flow easier. Make citrus drinks using oranges, lemons, limes, or grapefruit.

Cracking Raw Eggs

Have a heavy bowl for each child and plenty of extra eggs on hand. Demonstrate tapping the egg at the center to crack it and using the fingers to pull the shell apart. Use a small bowl for each child to crack an egg. When the egg has been cracked successfully and shells removed, put the broken eggs into a big bowl. This procedure keeps shells and other mistakes out of the final mixture.

Use the eggs to make scrambled eggs, to add to mixtures such as muffins, or to mix together for dipping foods such as French toast.

Mashing

The child can develop the skill of using a fork to mash bananas, cooked fruits and vegetables such as applesauce, or cooked beans for dip.

Try the skills with the Halloween pumpkin to make muffins or breads or hardcooked Easter eggs to make egg salad.

Bean Dip: Cook 1 lb. brown beans (pinto or kidney) until soft. Mash until smooth. Combine 2 tablespoons butter, 1 teaspoon salt, 1 medium chopped onion, 1 teaspoon garlic salt, 1 1/4 cup hot peppers (optional) and 2 cans tomato sauce. Makes 4 to 5 cups. For dipping use a variety of chips, crackers, breads, or vegetable slices.

IV. Fine Coordination—Resistance, Sharpness (5 years)

Careful eye-hand coordination and well defined safety procedures are needed for fine motor coordination. Start with simple experiences before progressing to more difficult ones.

Measuring

Actually, children are learning about measurement as they learn how full to fill a glass or as they divide food in parts. For measuring with measuring spoons, have ingredients in small bowls. Show how to fill the spoon and level it. Measure over a plate or wax paper in order to avoid getting spills in the food mixture being prepared.

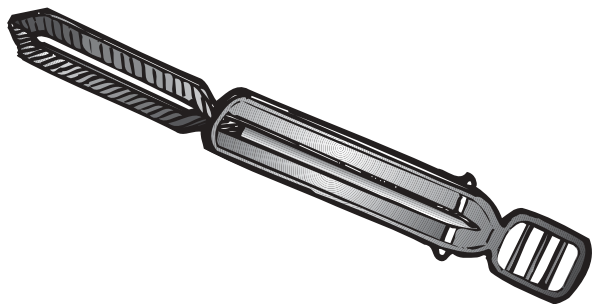
Cutting

Knives: Start with a dull table knife and semisoft foods such as cheese wedges, hard cooked eggs or bananas. Instruct the child to use one hand to hold the food securely, making sure that the fingers are not under the blade. Have the flat surface of the food on the cutting board. The index finger should be over the top of the blade. A sawing motion is used in cutting.

Review safety procedures with knives—how to pass, where to place when not in use, where fingers and loose clothing should be, what kind of surface to cut on.

After the basic skill has been learned, graduate to paring knives and raw vegetables such as onions, peppers, and carrots and apples.

Vegetable Peeler: Show the child how to hold a potato or carrot underneath; how to hold the food at a downward angle; and how to peel away from the body to avoid cutting themselves.



Grinding

A hand-cranked vegetable grinder is a marvelous piece of equipment for children to learn about foods and textures and changing shapes.

Peanut Butter: Grind peanuts for chunky style peanut butter (A blender makes smooth style peanut butter).

Liver Spread: Mix 1/2 pound cooked, ground liver; 2 teaspoons prepared mustard; pinch salt; 2 tablespoons chopped onion; dash pepper; (Optional: 2 tablespoons horseradish, or 1/2 teaspoon dried marjoram or thyme).

Ice Cream: Obtain a hand-cranked freezer. Check a standard recipe book for ingredients and directions.

Fruit Mixtures: Cranberries and oranges for Holiday Time.



Grating

Start with a square upright grater or one that fits securely to the top of a container. Show the child how to hold with one hand and how to move the food with the other hand. Show how to hold the fingers back far enough that they do not get cut while grating.

- carrots or cabbage for salads
- pumpkin for custard or bread
- apples for sauce

Liver-Cheese Spread: 1/2 cup cooked, ground liver; 1/4 cup chopped onion; 1/2 cup pimento cheese, shredded; 2 tablespoons mayonnaise.

Beating with an Egg Beater

Put the bowl on a damp cloth to cut down on slipping. Show the child how to hold the handle with one hand and use the other hand to turn the handle.

- Eggs for mixtures
- Banana Milkshake: Combine one ripe, mashed banana with one cup milk. Whip with an egg beater or in a blender.