Kids Cooking Activities Using the Five Senses: Taste, Smell, Sight, Hearing, and Touch

Provide experiences with food that not only develop small muscles for kneading, mixing, mashing, shaking, scrubbing, but make children more aware of their five senses. Food can be a motivator and a tool for teaching.

To a child, the kitchen is more than a place to eat. It is a place to mix and measure, compare sizes and shapes, taste and feel, smell and touch. It should also be a warm and inviting place where children can feel welcomed, loved, and protected.

Children love to taste every ingredient in a recipe – yes, even the flour. The different spices smell oh, so good, but different. There are other smells they may describe as “nice”, “like the pizza store” or “just like when we’re at grandma’s.” Through their senses they explore and learn. Being attentive to the five senses during cooking activities is fun and appropriate for all age levels.

You as a parent or caregiver can encourage and reinforce many of their sensory reactions by saying, “This apple sounds crunchy”, “Doesn’t the cinnamon smell spicy?” “This juice tastes very cold”. Help them use descriptive words such as wet, dry, crunchy, mushy, chewy, hot, cold, lumpy. You can ask: Can you taste the sugar? Isn’t this really hard and lumpy? You can also provide opportunities for them to be aware of the use of their senses.

How Children Learn Through their Senses

Taste

There are 4 basis tastes. They are: sweet, sour, salty, and bitter. The flavors in food help us to enjoy eating and the experiences that go with eating.

Allow children to be involved in food preparation. Children love to mix and shake, stir and beat. When preparing food, let children taste each ingredient as you add it in, then again when it is all mixed. Finally, let them taste the cooked product. Individual foods taste differently than when combined into one product. Caution is advised against allowing children to sample raw food that may not be safe to eat, such as cookie dough that has been made with raw eggs.

A good time to talk about the taste of food is at the table. Here you have a number of foods to talk about, as well as connecting with each member at the table. Eating together can encourage social development and language development as well as sensory awareness.

Smell
Let your child smell the spices in the cabinet. Tell the names of the spices and maybe name some dishes in which they are used. Let your child be aware of the many smells of food – how bread smells when it’s baking, how broccoli smells when it’s cooking, and how bacon smells when it’s frying.

The sense of smell is closely related to the sense of taste. These two senses help you enjoy the flavor of food. Therefore, anything you can do to encourage both senses adds to the enjoyment of food.

**Touch**

When preparing food, encourage your child to touch it (with clean hands!). Have them close their eyes and feel the lettuce, tomatoes, bread, macaroni, etc. and tell you how it feels. Is it hard, soft, squishy, sharp, sticky, smooth? Can they imagine how pudding and ice cream feel? Some foods make you feel very comfortable and warm inside; while other foods are not especially inviting.

**Sight**

More than 80 percent of information about our world comes to us through our eyes. You can increase your child’s visual experiences by bringing to their attention different shapes and sizes of objects. When baking cookies, they can see how the cookies are rising, or have risen. The child can see the differences in color and structure of foods. Just being aware of their surroundings is important. Especially is awareness important when safety is concerned. For example, steam coming from a coffee cup means it is hot.

**Hearing**

The kitchen is an ideal place to listen for different sounds. There may be the sound of the refrigerator and dishwasher running, the oven timer chiming, and outside noises such as dogs barking and cars driving by.

Being attentive when listening is an important skill to develop. You can read the recipe from the cookbook with your child and help interpret its meaning. You and your child may like to watch and listen to cooking shows on TV or videos. You may give directions to your child but is he/she really listening? Help your child develop this skill by making eye contact when speaking.

Here are 10 activities using food with a focus on learning through the senses. These can also help expand the child’s problem-solving skills:
Activity 1

Turn gelatin from a powder to a liquid to a solid and make it wiggle and shake.

You will need:
1 3 oz. package of any flavor Jell-O
Medium-sized bowl
One cup measurement
5 custard cups

What to do:

Pour Jell-O into bowl. An adult adds 3/4 cup boiling water. Stir until well mixed, about 2 minutes or until completely dissolved. Add 1/2 cup cold water and ice cubes to make 1 1/4 cups. Add to gelatin; stir until slightly thickened. Remove remaining ice. Refrigerate for 30 minutes for soft-set or 1 to 2 hours until firm. Spoon into cups, or pour into 9 x 13-inch pan. When Jell-O has set up, cut into different shapes with cookie cutters.

Let the child see and touch the different stages from the granular gelatin to the set-up gelatin. The child can see the difference, feel the difference, and even taste the difference.

Depending on the age of the child, you can tell a little about why and how this happens:

Jell-o has five basic ingredients: gelatin, water, sugar, artificial flavors and food coloring. It’s the gelatin that makes it hold its shape. Gelatin is made from a substance called collagen found in animal bones. Gelatin protein has three separate chains called amino acids that twist around each other. These chains are held together by weak bonds that form between the amino acids.

When you add flavor and gelatin mixture to boiling water, the powder dissolves. The weak bonds that hold it together then break apart and float around in the bowl free and loose. When you add cold water and ice, this cools it down and the chains begin bonding again. When you stir the mixture, the chains become tangled and water gets into the gaps between the chains. These gelatin “chains” and the trapped water and flavor are what make Jell-o wiggle and shake.
Activity 2

How to keep an apple from turning brown

You will need:
1 apple
1 lemon, juiced
1/4 cup pineapple juice

What to do:

Cut an apple into quarters.
Leave one of the quarters on the kitchen table.
Place one quarter in the refrigerator.
Sprinkle lemon juice on one quarter and leave on the table.
Dip one quarter in pineapple juice and leave on the table.
Check the apples at 5, 10, 15 and 30 minute intervals.

Did you hear the snap of the apple as it was cut in quarters? Find out which quarter/s turned brown first. Which one/s turned brown last? Which did a better job of keeping the apple from turning brown, the lemon juice or the pineapple juice, or were they about the same? Can you see the difference? Which might be the best method to use to keep apples from turning brown?
Activity 3

What happens when heat is applied to popcorn?

You will need:
1/4 cup oil
1/3 cup popcorn kernels
A large pot (4 quart) with cover

What to do:

Place oil and popcorn kernels in pot over medium-high heat and cover. Shake pan occasionally to keep it stirred so it will not burn. When popping noise slows, remove from heat. Add salt or melted butter, if desired.

Alternately, you could use the microwave, air-popper or other popping device and follow the directions for each on popping corn.

Did all the kernels pop? Why or why not? Have you heard this popping noise anywhere else? Do you like the smell of popping corn? Does it have a burned smell? Now you have seen the corn in both stages, heard it, smelled it, and now is the time to taste it. Note: Be sure children are old enough to eat popcorn safely without choking.
Activity 4

Do different parts of the same fruit taste the same?

You will need:

1 orange, preferably navel

What to do:

Peel the orange.
Cut one slice across the stem end and one slice across the blossom end.
Taste and compare.

Did you notice any difference in the taste? Was one end sweeter than the other end? More bitter? More sour? What may have caused the difference?
Activity 5

How does baking soda affect orange juice?

You will need:
1 teaspoon baking soda
2, one-cup measuring cups

What to do:

Pour 1/2 cup water into one cup measurement.
Add 1/2 teaspoon baking soda
Pour 1/2 cup orange juice into one cup measurement
Add 1/2 teaspoon baking soda

What happens? What is the difference between the two cups of liquid? Did you taste both mixtures? How does the orange-soda compare to orange juice? How did its appearance change? Did its volume change?
Activity 6

How does cooking change the look, feel, and texture of noodles?

You will need:
Water
A large pot
Follow directions on package for amounts to cook
Salt, if desired

What to do?
Look and feel the dried noodles. Are they crisp? Do they bend? Do they break?

Follow directions for cooking noodles. An adult needs to do this. After noodles have cooked a short period of time, spoon out a few noodles in a slotted spoon and place on plate to cool. After the noodles are fully cooked, drain thoroughly and cool. When noodles are cool enough to touch, have the children feel the partially cooked noodles and the completely cooked noodles. How do they feel? How do they look? Do they break easily now? How do they taste? Would we eat them for dessert? With ice cream? For the main meal? What might we add to noodles to make a different dish for eating?
Activity 7

How to make ice cream in a bag

You will need:
1/4 cup sugar
1/2 teaspoon vanilla
1 cup milk
1 cup whipping cream or half & half
Crushed ice (1 bag of ice will freeze 3 bags of ice cream)
1 cup rock salt
1 quart and 1 gallon size Ziploc freezer bags
Duct tape
Bath towel

What to do?
In a 1 quart freezer bag, pour in milk, whipping cream, sugar, and vanilla. Seal and fold a piece of duct tape over the seal to keep it well closed.
Place the bag with the ingredients inside a gallon freezer bag.
Pack the larger bag with crushed ice around the smaller bag.
Pour 3/4 to 1 cup of rock salt evenly over the ice.
Wrap a bath towel and shake for 10 minutes. (This works well if there are more children to share this). Open the outer bag and remove the inner bag with the ingredients. Wipe off the bag to be sure salt water doesn’t get into the ice cream.
Cut the top off and spoon into cups. Makes about 3 cups.


You may want to add this bit of information about temperatures and freezing:

Ice cream freezes at 21 degrees F (-6 degrees C). The freezing point of water is lowered by adding salt to the ice between the bag walls. Heat energy, through the shaking process, is transferred from the ingredients through the plastic bag to the salty ice water, causing the ice to melt. As it does this, the water in the milk freezes, resulting in ice cream.
Activity 8

How do foods taste separately and mixed together.

You will need:

1/2 cup orange juice
1/2 cup cranberry juice
(or another combination of two different juices)
3 glasses

What to do:
Pour 1/4 cup orange juice into 1 glass
Pour 1/4 cup cranberry juice into another glass
Pour 1/4 cup each of orange and cranberry juice into the other glass

How would you describe the taste of each glass of juice? Was it sweet? Sour? Bitter?
How did they taste combined? How did the color change? How did it look?
Activity 9

How to send secret messages to another by using baking soda

You will need:

1/4 cup baking soda
1/4 cup water
Q-tip or toothpick
Piece of paper
Paint brush or sponge
Grape juice concentrate

What to do:

Mix together baking soda and water. Then, using a Q-tip or toothpick, write your message on a piece of paper by dipping the Q-tip or toothpick into the water mixture. Let it dry completely. To read the secret message, paint grape juice concentrate across the paper with a paint brush or sponge. Keep in mind that grape juice stains so be cautious.

This is a visual experiment in “Now you see it and now you don’t.”

Information to add: The grape juice has an acid that reacts with the baking soda. A different color appears wherever the message is written.
Activity 10

To observe similarities and differences in foods

You will need:

Raw vegetables such as carrots, celery, broccoli, and cauliflower.
For vegetable dip:
   - 2/3 cup mayonnaise
   - 2/3 cup plain yogurt
   - 1 tablespoon dried parsley
   - 1 tablespoon dehydrated onion
   - 1 teaspoon dill weed
   - 1 teaspoon seasoned salt.

What to do:

Leave two of each kind of vegetable uncut to use. Let your child slice easy-to-cut vegetables into sticks, slices or flowerets. Note: You can par-boil carrots for younger children so they are easier to chew and take care when children use knives. Arrange vegetables on a platter. Mix up the vegetable dip recipe in a bowl. Let chill in refrigerator an hour or more to let flavors blend.

Show the whole carrots to your child. Ask: what is the same about them (name, color, shape).

What is different about them (length, weight, thickness)? You may want to use a ruler, tape measure, and scale to check this out. Then compare carrots to another vegetable, using the above criteria. You can repeat these comparisons using the other vegetables. When your experiment is completed, use the vegetable dip with the vegetables and eat.

Parents and caregivers are given the awesome responsibility to teach children about their world. This can take place during everyday activities such as preparing food or any of the dozens of jobs done around the home throughout the day. By looking around your environment, you can find many ways to enhance children’s sensory learning through food and cooking experiences.