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Tips for Fruit and Vegetable Taste Tests in Early Care and Education Settings

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Fruits and vegetables are an important part of a healthy diet. The *Dietary Guidelines for Americans* recommend that preschool-aged children (ages 3-5) should consume between 1 and 2 cups of vegetables and between 1 and 1.5 cups of fruits each day (U.S. Department of Agriculture and U.S. Department of Health and Human Services., 2020).

Unfortunately, many young children do not consume the recommended amount of fruits or vegetables (Banfield et al., 2016; Ramsay et al., 2014). One way you, as an early care and education provider or teacher, can help children consume more fruits and vegetables is by providing a lot of opportunities for them to try fruits and vegetables. This will help them learn to like or love eating fruits and vegetables. Several studies suggest that this is an effective way to increase preschool children's willingness to eat fruits and vegetables (Hodder et al., 2020; Nekitsing et al., 2018; Zeinstra et al., 2018). There are also studies that suggest that it might be necessary to offer a new fruit or vegetable as many as eight times before children are willing to try it (Nekitsing et al., 2018; Holley et al., 2017).

Taste tests or tasting experiences in early care and education settings provide preschool-aged children with opportunities to learn about, experience and taste a variety of fruits and vegetables. These experiences may complement the fruits and vegetables a child eats at home or could be the first time they have had the chance to try these foods.

Below are tips and best practices for conducting a fruit or vegetable taste test in a preschool classroom or other early care and education setting. These experiences can also be extended to incorporate other activities and meet multiple learning standards. For a successful taste test, remember to be patient and provide a positive, fun environment. Never force or require a child to eat anything.

Conducting a Classroom Fruit or Vegetable Taste Test with Preschool-Age Children

- Place food samples in small paper cups so they can be easily distributed. To avoid choking, cut the fruit or vegetable into small pieces, no bigger than half an inch, and cut small, round produce like grapes or cherry tomatoes in half or quarters (U. S. Department of Agriculture Food and Nutrition Service, 2020).
- Save a whole fruit or vegetable to use as a display. This will allow the children to see and experience what it looks like at the grocery store or market. If possible, keep roots, stems or leaves on the display food so that the children can see what it looks like while growing or just after being harvested. Show children pictures of the plant or tree so that they can see how it grows.

- Encourage children to try the fruit or vegetable but do not force them to eat it. Children can learn about and begin to develop a preference for fruits and vegetables by touching, smelling, smashing or licking them even if they do not eat them.
- Ask the children that liked the fruit or vegetable to talk about how they feel about it. This may encourage other children to try it.
- Give all adults in the room a sample and encourage them to try it along with the children.
- Once they have tasted the fruit or vegetable, give children an opportunity to communicate their feelings about it. Ask them to avoid saying that they dislike it. Instead ask them if they liked it, loved it, don't know, or will try it next time.
- Incorporate a math activity by asking the children to record their feelings with sticker dots placed on a table or graph and counting the number of stickers in each category.
- There are several ways to acquire fruits and vegetables even if your budget does not allow for purchasing them. Ask local grocery stores, food pantries, food banks or farmers' markets for donations or ask parents to provide whole produce. If you have a garden at your center, use the fruits and vegetables that you grow for taste tests. You might also work with other teachers or talk with your food service or kitchen staff to find affordable ways for your center to purchase fruits and vegetables.
- Let parents and caregivers know about upcoming taste test activities. Encourage them to talk with their children about what they tasted. Provide information about the fruit or vegetable and recipes featuring it, so that parents can prepare the same fruits and vegetables at home.

Best Practices

- **Provide many opportunities for children to try new fruits and vegetables.** It may take many attempts before children are willing to taste a new food. Children may be more willing to taste new fruits than vegetables. Studies show that it could take at least eight exposures for preschoolers to try a new vegetable (Nekitsing et al., 2018; Johnson, 2016; Wadhera et al., 2015).
- **Have fun and model positive behavior.** Taste the fruit or vegetable along with the children and avoid making negative facial expressions. Instead, encourage adults to smile and enthusiastically describe what they like about the food. Young children are more willing to try new foods if others around them are eating the same foods (Addessi et al., 2005). They are also more likely to try and accept the new food if adults in the room taste the fruit or vegetable and make positive and enthusiastic comments about it (Hendy & Raudenbush, 2000).
- **Lead children through the process of experiencing the fruit or vegetable with all of their senses.** Children who have the chance to engage in sensory play with foods may be more likely to taste those foods than children who have not (Coulthard & Sealy, 2017; Nederkoorn et al., 2018). Encourage them to touch, smell and see the sample before tasting it. Then ask children to describe what they see, hear, smell, taste, or feel. If possible, do the same with whole fruits or vegetables.

Safety Tips

- Before selecting a fruit or vegetable, review the children's allergies. Inform parents of the planned tasting so they can provide information about their child's allergies or sensitivities to the food or let you know if the family does not consume the food for religious reasons.
- Wash all produce prior to preparing. Ensure that children and volunteers wash their hands with soap and water before handling or tasting food. Use non-latex gloves and tongs when handling and preparing tasting samples.
- Keep prepared fruits and vegetables covered and refrigerated until you plan to use them.

Activities to Extend Taste Tests

The following are a few examples of activities that you can use to extend taste tests so that they address additional Arizona Early Learning Standards (Arizona Department of Education, 2018).

Taste Comparison

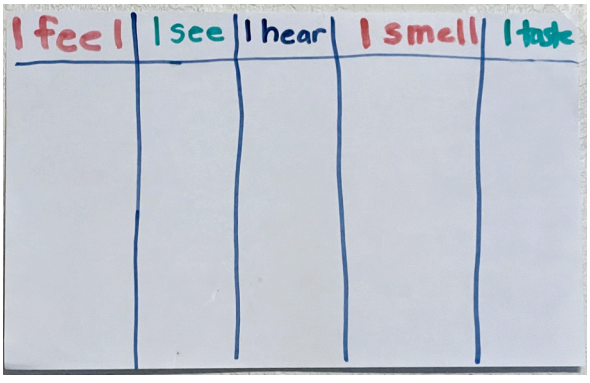
- Provide different colors or shapes of the same fruit or vegetable (yellow and red peppers), the same fruit or vegetable prepared in different ways (raw and cooked) or two different fruits or vegetables (cucumber and zucchini) so children can compare the two. Ask the children to use descriptive words to compare and contrast the shape, color, smell, and taste of the two foods.

Arizona Early Learning Standards: *Language and Literacy Standard:* Vocabulary | *Mathematics Standard:* Measurement and Data | *Science Standard*: Scientific Inquiry and Application.

Description Chart

- Create a chart with categories of characteristics (e.g., color, shape, size, smell, taste, texture, sound) or with prompts to help the children describe the food (e.g., "I see…", "I smell…", "I feel…", "I hear…", "I taste…"). Use these charts to encourage children to use rich adjectives when describing fruits or vegetables.

Arizona Early Learning Standards: *Language and Literacy Standard:* Expressive Language and Communication Skills | *Mathematics Standard*: Measurement and Data | *Science Standard*: Scientific Inquiry and Application



Predict and Compare

- Ask children to predict which fruits or vegetables will sink and which will float and talk about the reasons for their predictions.
- Test each food by putting it in a clear tub of water. Compare the results to the children's predictions. Make a chart with one column for the predictions and one for what happened when the food was placed in the water or a chart with one column labeled "Sinks" and one labeled "Floats."

Arizona Early Learning Standards: *Mathematics Standard:* Measurement and Data | *Science Standard*: Scientific Inquiry and Application

Body Parts Used for Eating

- Show children a realistic but simple diagram of the digestive system and body. Ask them think about these different body parts while they taste-test the fruit or vegetable: hands, fingers, eyes, nose, lips, tongue, throat or esophagus, stomach, and brain.
- Ask children to describe how we use that body part during eating. Then help identify any parts they didn't think of and talk about how they are used during eating.

Arizona Early Learning Standards: *Physical Development, Health and Safety Standard*: Personal Health and Hygiene Practices | *Language and Literacy Standard:* Vocabulary

Plant Parts We Eat

- Display a basic diagram or a photo of the whole plants and discuss how the fruits and vegetables we eat are different parts of the plant (e.g., root, leaf, flower, seed, stem, fruit). Ask children to examine a whole fruit or vegetable and guess which part of the plant it is.
- To extend this activity further, keep a chart with columns for each plant part in your classroom, place a picture of the fruit or vegetable you have tasted in the correct column. After you have tasted a few fruits and vegetables, look at the chart and lead the children in counting how many of each plant part you have tasted.
- This is also a good time to discuss that there are plants or plant parts that we cannot eat.

Arizona Early Learning Standards: *Language and Literacy Standard:* Vocabulary; *Science Standard:* Scientific Inquiry and Application

References

Addessi, E., Galloway, A. T., Visalberghi, E., & Birch, L. L. (2005). Specific social influences on the acceptance of novel foods in 2–5-year-old children. *Appetite, 45*(3), 264–271. https://doi.org/10.1016/j.appet.2005.07.007

Arizona Department of Education. (2018, May). *Arizona early learning standards, 4th edition.* Retrieved November 13, 2021, from https://www.azed.gov/sites/default/files/2015/02/Arizona%20Early%20Learning%20Standards_4th%20Edition_2021.pdf.

Banfield, E. C., Liu, Y., Davis, J. S., Chang, S., & Frazier-Wood, A. C. (2016). Poor adherence to US dietary guidelines for children and adolescents in the National Health and Nutrition Examination Survey population. *Journal of the Academy of Nutrition and Dietetics, 116(1)*, 21–27. https://doi.org/10.1016/j.jand.2015.08.010

Coulthard, H., & Sealy, A. (2017). Play with your food! Sensory play is associated with tasting of fruits and vegetables in preschool children. *Appetite, 113*, 84–90. https://doi.org/10.1016/j.appet.2017.02.003

Hendy, H. M., & Raudenbush, B. (2000). Effectiveness of teacher modeling to encourage food acceptance in preschool children. *Appetite, 34*(1), 61–76. https://doi.org/10.1006/appe.1999.0286

Hodder, R. K., O'Brien, K. M., Tzelepis, F., Wyse, R. J., & Wolfenden, L. (2020). Interventions for increasing fruit and vegetable consumption in children aged five years and under. *Cochrane Database of Systematic Reviews, 2021*(11). https://doi.org/10.1002/14651858.cd008552.pub7

Holley, C. E., Farrow, C., & Haycraft, E. (2017). A systematic review of methods for increasing vegetable consumption in early childhood. *Current Nutrition Reports, 6*(2), 157–170. https://doi.org/10.1007/s13668-017-0202-1

Johnson, S. L. (2016). Developmental and environmental influences on young children's vegetable preferences and consumption. *Advances in Nutrition, 7*(1). https://doi.org/10.3945/an.115.008706

Nederkoorn, C., Theiβen, J., Tummers, M., & Roefs, A. (2018). Taste the feeling or feel the tasting: Tactile exposure to food texture promotes food acceptance. *Appetite, 120*, 297–301. https://doi.org/10.1016/j.appet.2017.09.010

Nekitsing, C., Blundell-Birtill, P., Cockroft, J. E., & Hetherington, M. M. (2018). Systematic Review and meta-analysis of strategies to increase vegetable consumption in preschool children aged 2–5 years. *Appetite, 127*, 138–154. https://doi.org/10.1016/j.appet.2018.04.019

Ramsay, S. A., Eskelsen, A. K., Branen, L. J., Armstrong Shultz, J., & Plumb, J. (2014). Nutrient intake and consumption of fruit and vegetables in young children. *ICAN: Infant, Child, & Adolescent Nutrition, 6*(6), 332–344. https://doi.org/10.1177/1941406414549622

U. S. Department of Agriculture, Food and Nutrition Service. (2020, September 22). *Reducing the risk of choking in young children at mealtimes.* Retrieved November 12, 2021, from https://www.fns.usda.gov/tn/reducing-risk-choking-young-children-mealtimes.

U.S. Department of Agriculture and U.S. Department of Health and Human Services. (2020). *Dietary guidelines for Americans, 2020-2025*. 9th Edition. Retrieved November 12, 2021, from https://www.dietaryguidelines.gov/.

Wadhera, D., Capaldi Phillips, E. D., & Wilkie, L. M. (2015). Teaching children to like and eat vegetables. *Appetite, 93*, 75–84. https://doi.org/10.1016/j.appet.2015.06.016

Zeinstra, G. G., Vrijhof, M., & Kremer, S. (2018). Is repeated exposure the holy grail for increasing children's vegetable intake? lessons learned from a Dutch childcare intervention using various vegetable preparations. *Appetite, 121*, 316–325. https://doi.org/10.1016/j.appet.2017.11.087

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