As a teacher who loves to bring botany into my preschool classroom of 4- and 5-year-olds, I make edible plants a regular, popular feature of the children’s environment. It fascinates me that the children become increasingly adventurous in their tastes for vegetables the more they handle and understand plants, even if they just taste a scented herb or newly harvested sprout.

I decided to explore the children’s interest further and to draw parents into the learning process by instituting a healthy, daily snack program involving them, called Plant Parts Snack. Here I describe how to organize, document, and carry out such a program, and I include some of the families’ and children’s reactions to this innovation in the classroom.

**Organizing the study.** The simplest way to engage 4- and 5-year-olds in plant study is to discuss the main parts that make up a plant: seeds, fruits, flowers, leaves, stems, and roots. Exploring parts versus the whole is a useful activity and an approach that encourages the children to look more closely and examine details. For example, as children inspect a variety of leaves on a light table, they can easily discuss shapes and colors and form different theories about plants, such as what Ella noticed when comparing some large-leaved bean sprouts to some smaller alfalfa sprouts. “The leaves are like palm trees. Maybe it’s a dinosaur plant.”

A whole bush or tree can be an overwhelming project. Dividing a plant into its parts makes it easier for children to explore a plant’s different functions. For instance, we looked at the leaves to study how they convert and store the sun’s energy (photosynthesis), just as eating (snacking) converts food to energy for children’s growing bodies.

**Educating families and developing their support.** First, informally gauge parents’ reactions to the idea of Plant Parts Snack as a nutritious, educational activity. There was plenty of enthusiasm among parents in my classroom, and I decided to move forward to introduce the parents and the children to the study’s learning goals: to support children’s science learning through plant studies and to encourage children to eat healthy, sometimes unfamiliar foods. I also laid out parameters for healthy snacks, such as no sugary foods or trans fats.

Creating an illustrated table of the six major plant parts—seeds, fruits, flowers, leaves, stems, and roots—I listed edible examples in each category, appropriate familiar foods that families could contribute for children’s study/snack.

- **seeds:** nuts, beans, sunflower seeds, peas, pumpkin seeds, coconut, cocoa, lentils
- **fruits:** tree fruits (apples, pears, pineapples) and berries, melons, zucchini, tomatoes, cucumber, squash, pumpkin—foods produced by ground plants
- **flowers:** broccoli, cauliflower, rose petals, chamomile
- **leaves:** lettuce, spinach, greens, herbs (basil, sage, rosemary, thyme, dill)
- **stems:** celery, asparagus, cinnamon (bark)
- **roots:** carrots, turnips, radishes, parsnips, sweet potatoes, rutabaga, ginger (rhizome)

Along with the chart, the children and I sent a letter inviting parents/family members to join us in this project. We posted a sign-up sheet on our classroom bulletin board. Parents could choose to send in the actual edible plant part, such as apple slices,
or a processed version of the plant part, such as cinnamon applesauce. I asked that they bring in a picture of the whole food used for applesauce, along with a cinnamon stick, to help reinforce children’s conceptual understanding of the snack’s plant part connection.

Parents quickly signed up for the days and the plant parts they would contribute. Snacks began arriving immediately.

**Documenting the snacks.** It is important for children to have a clear reference source in the classroom to recognize and document the plant part in the snack being shared. To help them make the connection between a snack and the part of a plant, I replicated in poster size the plant parts chart we sent home to children’s families.

Using a set of classroom cupboards that happened to be divided into six doors (three above and three below), we covered each door with a different color self-adhesive paper. At the top of each section, we posted a large, laminated label with both the word and a picture of one of the six unique plant parts. Each day, as a child brought in his or her family’s snack, the children and I documented the plant part category that the snack fit and that we were planning to explore.

We added to our chart pictures we found on the Internet or had in our classroom photo collection, along with others sent in by parents, such as a photo of an avocado fruit to accompany a batch of guacamole.

**Results.** Plant Parts Snack was a simple way to make snack time interesting, using materials children could eat and enjoy. It was as well a nice relief from saltine crackers. The children were excited by the variety of snack foods and their newfound expertise about plants. When they identified a seed in one of the fruits served, they eagerly rushed to plant it.

The parents liked the sense of participation their contributions of snacks gave them. They appreciated the way the activity reinforced healthy eating habits. Some families saw their children opening up to more new foods at home over the course of the year.

As a teacher, I was delighted to see the resulting enthusiasm among families, particularly when they came up with a unique, edible plant part to bring for snack time. In addition to the opportunity to initiate wonderful science learning with preschoolers, I was happy to also expose the children to new foods and new eating experiences.

It would be a bit of an exaggeration to say that the Plant Parts Snack project converted the children to fruit and vegetable connoisseurs, but it was an eye-opening introduction to new foods and a learning experience about plants. Perhaps just as important, the snacks gave children an opportunity to talk about the times they dislike a food taste or texture and to learn how to express this in a way that is sensitive to the feelings of the person who brought the snack.