Planting Salad Greens in Peat Pellets

Children explore an alternative method to planting seeds as they plant Arugula, Green Leaf Lettuce, Mustard Greens, and Spinach in peat moss pellets. Planting seeds in this way serves to expand upon children’s existing understanding of seed planting for this particular group of children who have had multiple experiences planting seeds in a more traditional manner. Before planting the seeds children use warm water filled eyedroppers to expand the pellets and soften the soil. The children experiment with creative ways to do this beyond what the teacher had envisioned. Some children soak their pellets in warm water and others attempt to pour the water on top of the peat pellets all at once. The teacher facilitated dialogue with the children about the various strategies. Once pellet is softened children choose which type of salad green seeds they will plant into the pellet. After the seeds are covered in soil children place them into the greenhouse area that is designated for the type of seed that they chose. Children use picture/word labels to determine where each pellet should be placed as they match the picture/word on the seed packet. Children stay at this activity for one seed pellet or multiple if they sustain interest. The activity is available to children over the course of several days until all of the peat pellets have been used for planting. As children become increasingly capable of doing the activity independently the teacher becomes less involved and peer to peer modeling and dialogue becomes more prominent.
Sprouting Greens

It was so exciting to see the seeds that the children planted begin to sprout in the peat pellets. The sprouts were kept on a table in the science center along with spray bottles so that the children could mist them with water and care for them. Some of the children were particularly excited to see that the type of green they planted was beginning to grow. In the beginning the four varieties of salad greens looked very similar as sprouts. As the sprouts matured, the features of their leaves begin to become increasingly distinguishable. Clipboards with pencils and paper were put out so that children could document the changes that they observed. Magnifying glasses were also available so that children could get a closer look at the sprouts.
Caring for Keiki Salad Greens

For nearly two weeks the children cared for the keiki plants in the classroom. Soon they observed that the sprouts were no longer thriving and some were beginning to wilt. In a whole group gathering we talked about what plants need to grow and thrive and we determined that the one element that was missing was sunlight. When the children were asked where we could take the keiki to get more sunlight they first thought of the block area which is the sunniest area in our classroom. After the greenhouse housing the salad green keiki was moved to the sunny block center the children decided it was not a good idea because now there was not enough space to build with blocks. The teacher poses the question, “Where else could we bring the salad greens so that they can get the sun they need to thrive?” One child has an aha moment and thoughtfully suggests, “The garden!”
Transplanting the Salad Greens

A small group of children assist the teacher in transplanting the keiki salad greens from the peat pellet greenhouse into the garden. Initially this transition occurred because the children recognized that the keiki were not thriving and it was decided that they needed more sunlight. During the process of transplanting dialogue was facilitated by the teacher regarding the roots of the salad greens needing more space to grow than the peat pellets could provide. This instructional conversation led to further dialogue about how some of the peat pellets were too crowded and the roots were tangling up. This activity and the conversations that were inspired served to build upon children’s existing understanding of how plants grow and what they need to thrive. This transplanting activity is the second time that this group of children transplanted keiki plants. The first time around activity participants created a document titled, “Transplanting steps”. To provide children conceptual contextualization the document was used as a starting point for this activity. When all of the keiki salad greens were transplanted children were given an opportunity to revise the existing document with new information.
Caring for the Greens Outside

In the garden we moved from having not enough sun to having way too much sun. The children (guided by their teacher) decide that the plants need a balance of shade and sun. The children assist the teacher in constructing a shade covering using rods and a sarong to best protect the delicate keiki during the peak sunshine hours of the day.

Nearly every day a small group of children accompany the teacher to the garden to observe the growing keiki and to water them. Some plants do better than others in this new environment. We learn that the mustard greens and the spinach are more likely to thrive than the arugula or the green leaf lettuce.
Herb Tasting

Children chart their opinions as they taste test a variety of herbs. Each child's opinions are recorded on a chart that is to be used as context for herb planting activity. Symbols that children can identify with are used to notate the opinion about each herb on the graph. A smiling face signifies that a child enjoyed a particular herbs flavor while a frowning face signifies that the child did not like the herbs flavor. Children tasted basil, cilantro, mint, oregano, and rosemary leaves.
Creating Self Watering Herb Gardens

Working one on one with each child or in dyads to support peer to peer modeling the self watering herb gardens are created. Paper towels serve to absorb the water from the base of the planter and up into the soil. Herb seeds are selected based on the data documented in the herb testing activity. Literacy is supported as children use the chart to locate their names, understand the meaning of symbols, and locate their seeds by using word/picture cues. Children recall the steps to seed planting and expand their concept development as the seeds and plants absorb water from the bottom rather than a traditional top down watering method.
Multiple Forms of Assistance

Working with children one in dyads and one on one allows for varied and individualized forms of assistance to achieve activity’s learning objectives. In dyads, peer to peer modeling becomes a factor as children are encouraged to show how they work to create planter. Children working in dyads are also encouraged to articulate why each step is important as they reflect on questions posed by the teacher that support the development of critical thinking. These instructional conversations amongst children and adults involve rephrasing for clarification which allows a window for cognitive assessment of each child’s understanding. The same is true when the creation of the planter is done one on one except children do not hear the multiple perspectives of their peers. Instead one on one dialogue allows each child to think deeper about their own perception in feedback exchanges with an adult.
Caring For Herb Gardens

As the herb gardens grow children continue to learn about absorption as the water is soaked up through the paper towels and into the soil. Observations about the plants as they grow lead to conversations amongst teachers and children about what plants need to thrive and how they get what they need. Literacy continues to be a focal point as children sketch their observations and observations are documented. The joint production and sense of classroom community remains an element as children care for one another’s growing herbs.
Next Steps

• Continue to care for growing salad greens and herbs.
• Harvest salad greens herbs and taste test them raw.
• As a key element of seed to plate curriculum the salad greens will be used as a part of a classroom salad bar and the herbs used for various cooking activities including making salad dressing.
• Visit farmers market and grocery stores that carry local produce to learn about the variety of vegetables to use in the classroom salad bar.
• Visit Ma’o farms to learn more about planting, growing, and harvesting various greens.
• Follow up with children about other vegetables that they may want to experiment with in our classroom garden.