Seeds Lesson - Ages 5-8yrs

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Objectives

* To understand the importance of seeds in the garden (that plants grow from seeds, farmers use seeds to grow vegetables and fruits, animals/humans eat seeds produced by plants, etc.)
* To learn where seeds come from & be able to identify the seeds of 3 different plants in the garden (1 vegetable, 1 fruit, 1 flower)
* To briefly review parts of plants
* To establish that all seeds are different (sizes, shapes, length of germination, hybrid vs. heirloom, etc.)
  + - To learn the words “hybrid” and “heirloom”
* To taste 2-3 plants from the garden that have seeds (some with edible seeds & some with non-edible seeds)

**Materials:**

* “parts of plants” sunflower poster
* scissors
* bowl or basket for harvesting
* 1 sliced cucumber
* edible seeds (sunflower, pumpkin, etc.) for sampling

**Lesson:**

1. Greet students and thank them for visiting the Edible Schoolyard that day. Explain that today’s lesson is about seeds, which are a very important part of the garden.
2. Ask students: *where do seeds come from? Why are seeds important for farmers?* After a brief discussion, explain that PLANTS make seeds at the end of their life cycle. After a flowering plant is done growing/blooming/bearing fruit it needs a way to ensure that the species will continue; it makes seeds so that a new plant will be able to grow. Farmers can save these new seeds and plant them again the following year. This practice is called “seed saving,” and is a way to ensure that special types of fruits, vegetables, and other plants are preserved.
3. Review basic plant anatomy with the students, using the “parts of plants” sunflower poster. Discuss that seeds are sometimes on the outside of plants (like in a sunflower), or on the inside of plants (cucumber, okra, grape), as well as that some seeds are edible and some are not.
4. Walk through the garden to look for seeds. Examine seeds in a birdfeeder (discussing different animals that eat seeds, and why birds are important for a garden), sunflower seeds, okra seeds, and tomato seeds.
5. Conclude the walk by the muscadine vines, and help students harvest grapes in order to look at their seeds. Have students taste the grapes, and discuss the fact that the seeds are not edible. Ask students if the grapes are different from other grapes they’ve had before, & if so, why. Explain that some grapes are “hybrids,” which means that they have been altered in order to increase “desirable” traits (disease prevention, color, shelf-life, etc.). Some hybrid plants don’t make seeds, and therefore cannot reproduce. Discuss that other plants are “heirlooms,” or old varieties that have been saved year after year by farmers. Explore the differences between the two types of seeds.
6. As a closing activity, sample cucumber slices from the garden (fresh, edible seeds), pumpkin seeds (fresh and dried/salted), and sunflower seeds. Ask each student to say one thing they learned that day. Thank the students for attending an Edible Schoolyard garden class!

Extensions

1. Plant seeds in the garden, or in pots for the students to take home. Explain that a seed contains three parts: an embryo, an endosperm, and a seed coat. Describe the function of each, and the way that a seed turns into a small plant.
2. Bring an array of seed catalogues with colorful images. Explain to students that there are many different varieties of fruits and vegetables, and that we are only exposed to a few of these varieties at the supermarket. Have students look through the catalogues and make collages out of pictures that they like and/or food they would like to try.