HARVEST of the MONTH

Seasonal snacks from garden to classroom

OCTOBER 2015 – Cherry Tomatoes

CSG uses our **Educational Roots (RootEd)** frame to design lessons for our gardens.
The four core areas of RootEd are intended to enhance academic learning and include: cultivating gardening skills, providing experiential learning opportunities, promoting health and fitness, and nurturing social & cultural development.

Trivia Question and Cherry Tomatoes Facts

- QUESTION: "This fruit comes in all different colors, and is the perfect size for snacking straight out of the garden. It is a smaller version of a common summer garden plant. It is very juicy, and if you aren't careful the seeds will squirt out when you bite in."
- FACTS:
  - Tomato fruits contribute more nutrients to the diet than many other fruits and vegetables, with high amounts of lycopene, Vitamins A and C, potassium, folic acid, and other metabolites. Lycopene is also an antioxidant and it is what gives tomatoes their red color.
  - Green, unripe tomatoes continue to photosynthesize and contribute energy necessary for fruit and seed growth.

Garden Lessons

Saving Seeds – Science 1.4c

Background: Plants can be divided into angiosperms and gymnosperms. Gymnosperms are non-flowering plants whose seeds are "naked" and unprotected (ex: pines, cedars, firs, spruces). Angiosperms are flowering plants that produce seeds enclosed inside an ovary (Ex: cherry tomatoes, carrots, maples, dogwoods). Angiosperms can be further divided based on whether their fruit is fleshy (ex: tomatoes) or dry (ex: maple seeds).

Lesson: Show students an example of a dry-fruited angiosperm (maple seed), a fleshy-fruited angiosperm (tomato), and a gymnosperm (pine cone). Explain the differences between the three and then explain that we will be saving seeds from this year's fleshy-fruited tomato plants to grow next year.
Pre-cut tomatoes in half at their equator (horizontally along the center), and have students squeeze the tomato juice and seeds into clear jars or bowls. Let the jars sit for 3 days in a space at room temperature, stirring once each day. Note: The juice of the tomatoes is slowly fermenting allowing the seed to separate from the gelatinous tissue from inside the ovary – therefore, the jars may smell, but that is a good sign. After 3 days, strain off the liquid and rinse the seeds in clean water. Then, have each student spread seeds out on a paper plate labeled with their name. Allow the seeds to dry on the plate for 5-6 days in a space at room temperature and out of direct sunlight. Then scrape them off the plate, package them, and have students take them home.

Extension: Have students test the germination rate of their saved seeds by planting them in seedling trays and monitoring how many grow.

Signs of Ripening – Science 4.4d

Background: Humans eat different parts of plants based on which part adapted to be the primary store of energy. Carrots store energy in the root underground, lettuce stores energy in its leaves low down, and tomatoes are the product of the plant's use of its energy to flower and grow seeds.

Lesson: Have students explore the garden to look for different signs that fruits and vegetables are ready for harvest. They should see a wide range of signs, including: roots poking out of the ground (carrots, beets), leaves drooping (kale, collards, chard), color changing (peppers), fruit softening (tomatoes), leaves dying back (sweet potatoes, potatoes), stems browning (winter squash), etc.