CSG uses our Educational Roots (RootEd) frame to design garden lessons such as the examples below. The four core RootEd areas are intended to enhance academic learning and include: cultivate gardening skills, providing experiential learning opportunities, promoting health and fitness, and nurturing social & cultural development.

**Trivia Question and Apple Facts**

**QUESTION:** “This food has many seeds, and if planted, each seed will grow into a different variety of tree that won’t resemble the original. They often say, eating one-a-day, keeps the doctor away. They have green, red, or yellow skin.”

**FACTS:**
- Apples are in the Rose Family and are closely related to cherries, raspberries, and almonds.
- The stem on the outside of the apple is the remains of the pedicel from the apple’s flower. The pedicel attaches the flower to the tree branch. On the opposite side of the fruit, you can see the dried, brown, shriveled, star-shaped remains of the apple’s flower. The apple itself is the enlarged ovary of the flower, holding the seeds (ovules) inside.
- With the skin, apples provide vitamins C and A, calcium, iron, and boron.

### Garden Activities

**Apple Seeds:**
- Cut some apples in half vertically and others in half horizontally, and compare. Discuss the different parts of the apple (highlighting that their parts come in 5’s), and give the apple halves to students to extract and count the apple seeds.
- Discuss apple propagation. Explain that while you can plant a seed and it will grow into an apple tree, the apples on that tree may not match the apple from which it came. Demonstrate other methods of propagation (bend raspberry stems to the ground and cover in dirt to get them to re-root, take cuttings from herbs and root them into pots).

**Meet a Tree:**
- Have students make rubbings of the bark of three different trees. Different tree species grow in different ways, making their outer bark look unique. The bark of an apple tree has its own distinctive growth pattern that distinguishes it from other trees.
- Divide students into pairs and blindfold one of the two in each pair. Have their partner lead them to a tree to feel the bark pattern, and then lead them away and turn them in a few circles until they’re disoriented. Next, have the student remove their blindfold and try to re-find their tree by wandering and feeling different tree’s bark.
- Show students a tree round, pointing out the summer and winter growth rings. Explain that trees grow in a way that makes them different from other plants in the garden, making woody growth instead of just vegetative (like a tomato). Have students count the growth rings of the tree to determine its age.

**Cores in the Compost:**
- Have students place whole apples in the compost or a worm bin (or just dig for what’s already there) to uncover in a few weeks to see the decomposition process and discuss decomposers.
- Show students how to add their apple cores and food waste to the compost by covering it with straw. Discuss that food waste still has nutrients in it that will breakdown into soil. Have students add dead plants to the compost or add compost to garden beds.