

### Materials

- Pruning scissors
- Twine
- Ruler
- 5-gallon plastic bucket

### Preparation

- Check on the progress of tomato plants and look for suckers
- Calculate the number of pruning scissors you will need for this lesson (1 pair per plant). Collect pruning scissors in a plastic bucket and place by tomato bed(s).

## PROCEDURE

### Part 1: Examine Tomatoes, Identify Plant Parts

- Arrange students evenly around tomato bed(s) and direct their attention to the tomato plants. “Which plant parts have formed so far?” As a group, identify existing plant parts (roots, stem, leaves, flowers). If fruits have begun to form, point them out as well. “What parts have yet to form?”
- “What part of the tomato plant do we eat?” (Fruit and seeds) “As farmers, we want our tomato plants to produce as much fruit as possible. We can help the plant produce a more bountiful harvest by pruning, or removing, unnecessary plant parts.”

### Part 2: Sucker Tomatoes and Tie Up

- “As a tomato plant grows, branches form off of the main stem. Occasionally, the plant will produce additional shoots in the joint between the stem and larger branches. These budding branches are called *suckers*.” Point out suckers to the group. Explain how suckers take energy from the plant that could be redirected elsewhere.
- Divide students into work pairs or trios and arrange each group in front of a tomato plant. “Using only your eyes, examine the tomato plant closest to you. Can you spot any suckers?” Have students take a minute to examine tomato plants. Circle around the group to assist students in spotting suckers. Once they are able to correctly identify suckers, instruct students to count the number of suckers on their plant.
- “How many suckers did you find?” Compare numbers as a group. “Today, we are going to remove these suckers.” Explain how removing tomato suckers increases fruit production. Then, demonstrate how to carefully remove a sucker using pruning scissors. Grasp the sucker at its tip and cut it off at the base, being careful not to disturb the plant’s main stem or surrounding branches. Select a student volunteer to demonstrate.
- Distribute pruning scissors and have groups get to work. Instruct students to trade pruning scissors after each cut. Circle around the group to check students’ work. Collect discarded suckers in a plastic bucket and place in the compost pile. As groups finish, collect pruning scissors then direct everyone’s attention to the trellis.
- “Plants will get heavier as they begin to produce more fruit, therefore they will need some extra support.” Starting at one end of the trellis, attach the twine to the stake about 12 inches off the ground. Working down the line, have students carefully weave the twine in and out of the tomato plants, passing it from group to group. Wrap twine around the stake at the opposite end of the bed, pull until taught, and tie a knot.
- Weave back in the direction you came, so that your second weave is opposite of the first. The tomato plants should be trapped between the two pieces and held upright. Tie off twine and repeat the process for any additional rows of tomato plants. Collect materials.

### ENGAGE

Gather around tomato bed(s). “How many different plants are growing in this garden bed?” There should be a combination of tomatoes, basil, amaranth, and marigold. As a group, work together to identify each plant. “What are the benefits of growing different plants together in the same bed?” Discuss companion planting. “Tomatoes, basil, and marigold work together to help one another grow. Basil is said to enhance tomato the flavor of tomatoes, while marigolds help to deter garden pests. As we will learn during this lesson, there are other ways to improve the quantity and quality of our tomato harvest.”

### Objectives

- Students will be able to define *pruning*
- Students will understand the benefits of pruning – i.e. pruning redirects the plant’s energy into growth, fruiting, etc.
- Students will be able to identify and carefully remove tomato “suckers”

### EXPLAIN

#### Pruning – When and Why

At this point in the growing season, the garden is taking off. Most cold-season plants have completed their life cycle and warm-season crops have taken their place. Of these warm-season standouts, no crop is arguably more adored than the succulent tomato. Right now, tomato lovers everywhere are dutifully tending to their tomato plants in anticipation of a bountiful summer harvest.

While weeding, watering, and fertilizing are all necessary garden tasks, there are some additional care requirements during this part of the growing season. Pruning is one of them. Pruning is defined as “removing plant parts for a purpose”\*, and has numerous benefits for certain plants. Some plants are pruned for physical reasons in order to thin out dense growth, create pleasing shapes, or repair damage. Other plants, like our tomatoes, are pruned in order to direct growth and encourage fruiting.

By removing suckers from our tomato plants, we stop the growth in that direction and encourage it elsewhere. This gives the gardener greater control over the way the plant grows. In this case, the tomato plant’s energy is directed into fruit production instead of bushy, green growth. Tomato plants will still produce fruit without pruning, but it is likely that fruit production may be inferior in quantity and quality in comparison to pruned plants.

\* From [Pruning Handbook](#) by the Editors of *Sunset Magazine*.

### ADDITIONAL CONTENT INTEGRATION *(see previous page)*

Instead of using pruning scissors to remove suckers, pinch them off between your thumb and pointer finger. Weather you are using pruning shears or your fingers, be sure to wash them off after you prune each plant to avoid spreading disease from plant to plant.

Left with a pile of tomato “suckers” and leaves after pruning? Consider doing a leaf rubbing. Place a leaf under a sheet of white paper. Holding the crayon horizontally, rub over the leaf, creating a left print on your paper.

#### Additional Materials

- White paper
- Crayons with wrappers removed

### EVALUATE

**Journal prompt:** What is pruning? What are the benefits of removing tomato suckers?