Growing Plants? No Problem!

Did you know a Tower Garden® can hold up to 20 plants? Use this fact to help you solve the problems below. Explain your thinking with numbers, pictures, or words.

1. Grace and DeShawn have 16 seedlings to plant in their Tower Garden. Do they have an even or an odd number of seedlings? How many more seedlings can they put in their Tower Garden?

2. Juan has 7 seedlings and Ava has 6 seedlings. How many more seedlings can they plant in their Tower Garden?

3. Ms. Bright’s class has 6 lettuce plants, 4 tomato plants, and 4 cucumber plants in their Tower Garden. If the rest of the Tower Garden has strawberry plants, how many strawberry plants do they have?

4. Flora and her classmates have an equal number of lima bean plants, green bean plants, bush bean plants, and fava bean plants in their Tower Garden. How many of each kind of plant do they have?

5. There are 10 kale plants growing in the community center’s Tower Garden. There are also an equal number of leek and okra plants growing in the same Tower Garden. How many leeks and okra plants are growing in the Tower Garden?

6. Mr. Segundo’s class wants to plant herbs in their Tower Garden. They would like to use chives and dill. If they use at least 6 of each plant and they fill their Tower Garden, how many of each herb can they have? List all possible answers.
Student work will vary.

1. even; 4 more seedlings
2. 7 more seedlings
3. 6 strawberry plants
4. 5 of each plant
5. 5 leek plants, 5 okra plants
6. 6 chives, 14 dill; 7 chives, 13 dill; 8 chives, 12 dill; 9 chives, 11 dill; 10 chives, 10 dill; 11 chives, 9 dill; 12 chives, 8 dill; 13 chives, 7 dill; 14 chives, 6 dill
Urban Gardens Versus Rural Gardens

Urban Gardens

• Found in cities.
• Have limited space.
• Plants might be grown in pots, planters, vertical towers, or greenhouses. They might be found on rooftops, patios, or small plots of land.
• Provide food to people who are close by.

Rural Gardens

• Found outside of cities.
• Often have large areas of open space.
• Plants are most often grown in the ground, but they may also be grown in pots, planters, vertical towers, or greenhouses.
• Provide food to people who are close by or far away.
Introduce the social studies words *rural* and *urban*. Lead students to understand what each term means. Next, have each child think about what a rural garden might be like. Provide time for each child to share his or her ideas with a partner; then invite students to share their ideas with the class. Then repeat the think-pair-share technique, having students consider what an urban garden would be like. After students have shared their ideas, use a document camera to project the mini poster onto the board. Review the descriptions of each garden, and have students share what they notice in the photos of each type. Follow up the activity by having each child draw and complete a Venn diagram comparing and contrasting the two types of gardens.
Urban Farming at a Ballpark

What do you think—do baseball and gardening go together? The San Francisco Giants think so. With the help of Bon Appétit Management Company, they built a garden in their baseball stadium, and it’s amazing!

The Garden at AT&T Park can be found behind the centerfield wall, just under the scoreboard. This garden covers 4,320 square feet. Like other gardens, fruits and vegetables are grown there. You can find peppers, lemons, blueberries, lettuce, and more. These plants are grown in planter beds and aeroponic towers made by Tower Garden®. Aeroponic towers have many advantages. Since the plants grow without using soil, there are no weeds to pull or messes to clean up. Also, these towers use a lot less water than regular gardens. Aeroponic towers can also grow many plants in a small space. How many plants will one tower grow? Each tower can grow up to 44 plants in a vertical (up and down) space.

There’s more to the Garden than just growing plants. The Garden has two bistros, or small restaurants. These bistros serve dishes prepared with fruits and vegetables grown in the Garden. This food is served to fans who come to the park before or during a game. The Garden also serves as a classroom for students who visit it on field trips. Students get to see where food comes from, get to see how it grows, and even get to cook some of the food! The goal of the Garden is to teach the community about the benefits, or good results, that come from a healthy lifestyle.

Use the passage to answer the questions.

1. What is topic of this reading? ________________________________________________________

2. Where in the ballpark is the Garden found? ______________________________________________

3. When can fans visit the Garden? ______________________________________________________

4. What is the goal of the Garden? ______________________________________________________

5. What are three advantages of aeroponic towers? ________________________________________
“Urban Farming at a Ballpark”
Answer Key

1. the Garden at AT&T Park
2. behind the centerfield wall, just under the scoreboard
3. before or during a game
4. to teach the community about the benefits that come from a healthy lifestyle
5. There are no weeds to pull or messes to clean up since the plants grow without using soil. The towers use a lot less water than regular gardens. Each tower can grow a lot of plants in a small space.
Science Journal Page

Plant:

What I observe (see, smell, feel, hear, taste):

What I predict:

How this plant is like ________________.

How this plant is different than ________.

What I wonder:
Copy the journal page for students. Have each student write the name of the plant being observed. Then instruct the child to write about and/or draw the plant. Guide the student to predict what changes the plant will undergo. Then have the child compare this plant to another, writing the name of the other plant on the lines. Finally, have the student record any questions he or she has about the plant and its potential changes. Instruct the student to store the paper in a folder. Repeat the activity throughout the growing cycle. Later, bind the journal pages to create a book of each student’s journal pages.
Glue this page into your science or writing journal. When you use a prompt, write the number on the next page in your journal. Then write a detailed response. Check off the prompt on this page so you know you have used it.

☐ 1. A benefit is a good or helpful result. What kinds of benefits, or good results, come from growing your food?

☐ 2. What is the difference between a seed and a seedling?

☐ 3. How do roots and stems work together?

☐ 4. Describe the steps you take to grow plants in Tower Garden® to someone who has never seen or used one.

☐ 5. What does it mean to harvest plants?

☐ 6. Compare and contrast two different plants grown in your Tower Garden. Describe how each plant grew. Then tell how each plant looks and tastes.

☐ 7. Write a true story about an event that happened with your Tower Garden. Tell who was there, what happened, and how you felt. If you learned a lesson from the event, tell that too.

☐ 8. Pretend that another school is curious about whether they should get Tower Garden. Write to explain your opinion.