

Top Crops

Rooftop gardens are blossoming across the country.

Most kids would say "No way!" to attending school during summer vacation. But the students at the Ernestine C. Reems Academy of Technology and Arts in Oakland, Calif., do it-and they love it. They spend the time pursuing higher education-tending the school's rooftop garden.



David Hanks

Students from the Ernestine C. Reems Academy and people from the local community gathered for a photo after building planters and planting vegetables on the academy's roof.

For three years now, Reems students and teachers have grown flowers and vegetables on the roof. This year, they added eight more garden beds. "It's continuing to grow and flourish," says the school's principal, Lisa Blair.

In addition to learning **horticulture** (the science of caring for gardens), the students have had lessons in cooking their freshly grown vegetables. And they've learned about "the relationship between Earth and man," says Blair.

Keeping Cool

Green roofs (rooftop gardens) are becoming very popular. There are thousands of them in the United States. They do more than yield flowers, herbs, and vegetables. They help keep buildings cool. In the summer, rooftop temperatures can reach a scorching 80 degrees Celsius (176 degrees Fahrenheit). A green roof can cut that temperature in half. That saves energy that would otherwise be used to air-condition the building.

Green roofs reduce pollution too. Normally, rainwater spills off buildings onto roads and other concrete surfaces. The water then picks up dirt and chemicals and flushes them into rivers and lakes.

That unclean water, called **storm water runoff**, is a major source of water pollution. Rooftop gardens soak up rainwater, reducing runoff.

In cities, where green space may be limited, rooftop gardens also give people a place to connect with nature. And they provide homes for bugs, birds, and other wildlife.

Dirty Job

Rooftop gardens can be planted with grasses, cacti, shrubs, trees, and more. The Reems students are focusing on vegetables-corn, broccoli, kale, and squash. Every year, they harvest about 32 kilograms (70 pounds) of veggies. This spring, they hope to grow enough to sell some produce at local farmers markets, Blair says.

Tending a garden is hard work. You have to water the plants, pull weeds, and tend the soil. "The biggest challenge is moving the dirt and the wood up to the top floor, because there's no elevator," Blair says.

Though the Reems students are getting their hands dirty, it's worth every minute, says Blair. "It has been a success," she adds, "and the students love it."

Name: _____ Date: _____

1. According to the passage, how many pounds of vegetables do Reems students harvest every year?

- A. 23
- B. 7
- C. 70
- D. 32

2. The passage describes some of the produce from the rooftop garden. According to the passage, which of the following is NOT something the Reems School has planted in their garden?

- A. broccoli
- B. kale
- C. cucumbers
- D. corn

3. Based on the passage, the Reems School may be adding more garden beds because

- A. the students do not enjoy working on the rooftop garden
- B. it is easy work to take care of a garden
- C. students hope to grow more vegetables to sell at the market
- D. the school's electricity bills are too high

4. Read the following sentence:

"In the summer, rooftop temperatures can reach a scorching 80 degrees Celsius (176 degrees Fahrenheit)."

As used in the passage, **scorching** means

- A. burning
- B. freezing
- C. exciting
- D. normal

5. What is the main idea of this passage?

- A. Rooftop gardens are a great way of growing your own food.
- B. It is hard work to take care of rooftop gardens.
- C. Building a green roof is a good way to reduce your use of energy.
- D. Rooftop gardens have many positive effects on the environment.

6. Other than producing vegetables, what are the two other positive effects of rooftop gardens?

7. Based on the passage, through their work on the rooftop garden, how have Reems students most likely learned about the relationship between Earth and man?

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

People who live in the city have limited green space, _____ rooftop gardens give a place for those people to connect with nature.

- A. because
- B. but
- C. before
- D. after