

**CAUSE AND EFFECT****37****Stage 3: Comprehension**

**Directions:** Read the passage. Then answer the questions on the next page.

## Sinking in Winter Park

On May 8, 1981, Mrs. Mae Rose Owen was at her home in Winter Park, Florida. Mrs. Owen had moved to Winter Park because she wanted to enjoy warm weather and beautiful scenery. But the scenery suddenly changed the day she saw a huge tree sinking in her front yard. Amazed, she watched the tree disappear into the ground. Then she hurried to call the police.

Mrs. Owen's tree was only the first to go. Next, the deep end of the town swimming pool disappeared. Along with it went more trees, part of a street, houses, and cars. Soon even more of Winter Park sank underground. What had happened?

Over millions of years, rain had leaked into the bedrock beneath Winter Park. The rain slowly wore away the rock. As a result, a large, water-filled cave had formed. For many years, water in the cave helped to hold up the ground above it.

By 1981, people in Winter Park were using a lot of water. There had also been a drought, or a long period without rain. The water level in the cave sank very low. There was not enough water to hold up the ground above the cave. Finally, the cave ceiling fell in. It left a large hole in the ground called a *sinkhole*.

The Winter Park sinkhole grew until it was 400 feet wide and 150 feet deep. Today it is a small, pretty lake in the middle of Winter Park. Although it made headlines at the time, the Winter Park sinkhole was not a one-of-a-kind event. In fact, many small lakes in Florida have formed in the same way.

**CAUSE AND EFFECT**

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Stage 3: Comprehension (continued)

Directions: Choose or write the answer to each question.

1. Why did Mrs. Mae Rose Owen move to Winter Park?

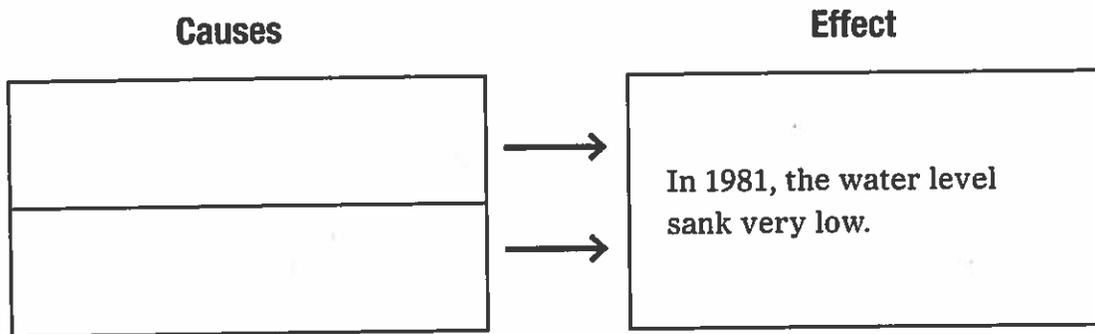
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2. Why did part of Winter Park disappear in 1981?

- Ⓐ It fell into a sinkhole.
- Ⓑ A mud slide swallowed some houses.
- Ⓒ Heavy rain washed land away.
- Ⓓ The town built a lake in its center.

3. Why did the water level in the cave sink so low in 1981? Fill in the organizer with two reasons.



4. What happened when the water level in the cave became low?

- Ⓐ The bedrock was worn away.
- Ⓑ Rain leaked into the rock.
- Ⓒ The ceiling of the cave collapsed.
- Ⓓ The water held up the ground.

5. Why does Winter Park now have a lake in the middle of town?

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**CAUSE AND EFFECT****51****Stage 4: Comprehension**

**Directions:** Read the passage. Then fill in the chart on the next page.

## The Fight Against Yellow Fever

In 1899, a team of Army doctors headed by Walter Reed went to Havana, Cuba, to investigate an outbreak of deadly yellow fever. Yellow fever was a major health problem, especially in tropical areas. The United States planned to build a canal across Panama, so interest in controlling the disease was high. The goals of the Army Yellow Fever Commission were clear: Find the cause and do something about it. Any solutions found by the commission could be used anywhere there was an outbreak of yellow fever.

Some people believed that yellow fever spread through the air and might be controlled by keeping sick and healthy people apart. Another possible cause was unsanitary living conditions. Sewage, dead animals, and litter filled the streets of Havana. Perhaps the “bad air” came not from the patients but from the filth all around them. On the other hand, maybe burning everything touched by an infected person might do the trick.

Reed decided to investigate a fourth possibility: mosquito bites. In 1881, Dr. Carlos Finlay said that yellow fever was spread by mosquitoes. His experiments never proved this, so many people did not believe him. Walter Reed’s team set out to look for proof. After letting an infected mosquito bite him, Dr. James Carroll got yellow fever. Luckily, he did not die. Then four volunteers spent 20 days in a closed hut sleeping in the beds of yellow fever patients. None of them got sick. Reed was convinced that mosquitoes were indeed the enemy.

It now fell to Dr. William Gorgas to get rid of the mosquitoes. Since mosquitoes lay their eggs in standing water, Gorgas’s team set up drainage systems and made sure that every water container in Havana was covered. They also used insecticides in houses where people had had yellow fever. These methods proved successful. In 1900, there were 1,400 cases of yellow fever in Havana. After October 1901, there were none.

**CAUSE AND EFFECT**

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**Stage 4: Comprehension (continued)**

**Directions:** Complete the cause-and-effect chart using details from the passage.

**Causes**

**Effects**




1. In 1899, a team of Army doctors headed by Walter Reed went to Havana, Cuba, to investigate yellow fever.






2. Walter Reed decided that mosquitos were the enemy.






3. After October 1901, there were no more cases of yellow fever in Havana.

