

## Interview a Lake *Handout*

Students learn about Lake Apopka's history while practicing for the FCAT.

Water Atlas Curriculum Lesson 12 – FCAT Supplement

### An Interview with Lake Apopka

- Interviewer:** Lake Apopka, thank you for taking the time to tell us a little about yourself.
- Lake Apopka:** No problem! I wish more people cared enough to find out about me. I've survived a lot in the last 70 years, and even though I've had my problems, I'm getting better every day.
- Interviewer:** Well, tell us a little about yourself. How big are you?
- Lake Apopka:** 30,862 acres. That's over 48 square miles.
- Interviewer:** Wow, that's huge!
- Lake Apopka:** I used to be even bigger. I was the second largest lake in Florida, after Lake Okeechobee. I covered over 50,000 acres. But farmers made dikes along my shoreline and started using my water to irrigate their crops, so now I'm only the fourth largest.
- Interviewer:** Wow, I'm sorry to hear that. When did this happen?
- Lake Apopka:** It started around 1940. I've never really been the same since.
- Interviewer:** Well, you're still a huge lake. You must support a lot of wildlife.
- Lake Apopka:** There have been problems on that score, too. It's a little embarrassing to talk about.
- Interviewer:** Why? What happened?
- Lake Apopka:** Once I had really clean water. The wetlands surrounding me filtered it before it flowed into me. But those wetlands got turned into "muck farms" and planted with vegetables. By 1965, almost all those marshes had been turned into cropland. Farmers would flood their fields with my water for weed control, and when the water flowed back into me, it was full of fertilizer and pesticides. That stuff is really hard on wildlife, and the nitrogen and phosphorus make aquatic plants grow like crazy—including, unfortunately, exotic invasives and toxic algae. In 1980, a pesticide spill caused a lot of my baby alligators to have birth defects. I still have a lot of chemical residues. Even as recently as 1999 there were big bird die-offs.
- Interviewer:** Wow, that's sad. Those farmers should be ashamed.
- Lake Apopka:** I don't blame them, because they didn't realize what would happen and they were just trying to make a living. They probably believed that because I was so big I could just absorb all the pollutants, that they'd be diluted to harmless levels. Besides, there was pollution coming from other places, too.
- Interviewer:** Really? From where?
- Lake Apopka:** Well, there was wastewater from citrus packing plants, and sewage effluent, too. And some things were nobody's fault—like a hurricane killing off half my eelgrass in 1947.

Name:

Date:

## Interview a Lake *Handout*

Students learn about Lake Apopka's history while practicing for the FCAT.

Water Atlas Curriculum Lesson 12 – FCAT Supplement

Some well-intentioned people did try to help me, but sometimes there were unintended consequences. Once, they tried to get rid of the exotic water hyacinth plants that invaded me and poisoned a lot of other good plants in the process. All those dead plants really messed up my water and killed a lot of fish.

**Interviewer:** Speaking of fish, I've heard that you're a really great place for sport fishing.

**Lake Apopka:** At one time I had 29 fish camps on my shoreline, but now I don't have any. When my water quality deteriorated, a lot of the fish that were prized for eating or sport— largemouth bass, sunfish, and the like—died out and tougher "trash fish" like gizzard shad and gar replaced them in large numbers. Because of the chemicals in my water, people were afraid to eat the fish they did catch. My water quality has gotten better, though it still isn't great. And the Florida Fish and Wildlife Conservation Commission is finally stocking me with bass, so the fishermen are coming back.

**Interviewer:** You're right—you've had it pretty tough. Are things getting any better?

**Lake Apopka:** A lot of good people have been concerned about me for a long time and tried to help me with little success. But things started turning around for me in 1985, with the passage of the Lake Apopka Restoration Act. After that, the Legislature and the Water Management District seemed to get serious about stopping all the abuse I was getting.

**Interviewer:** Thank goodness! What have they done to help you?

**Lake Apopka:** They bought out 15,000 acres of muck farms and are restoring the marshes and wetlands surrounding me. They stopped cities from dumping sewage effluent into me, and citrus packers from dumping waste products into me. They built a 5,000-acre marsh filtration system on my northwest corner, to clean water that flows into me. They planted the shallows and the shoreline with vegetation to provide habitat for my sport fish and birds, and they've harvested millions of pounds of gizzard shad to improve the "food web" and to reduce the amount of phosphorus in the lake.

**Interviewer:** Wow, you must be feeling a lot better.

**Lake Apopka:** I'm grateful for what's been done to improve my water quality, that's for sure. I even have a "Friends" group! The Friends of Lake Apopka built a loop trail around me that's part of the Greenways & Trails system. It's a wonderful place for recreation and watching wildlife. And a lot of people come to visit me at the Oakland Nature Preserve. These things make me very proud!

**Interviewer:** Well, it's good to know that you're on the mend. We wish you the best!

**Lake Apopka:** Thanks, I need all the friends I can get!

*This interview was created using data and information from the [Orange County Water Atlas](#) website and the [Friends of Lake Apopka](#) website.*

Name:

Date:

## Interview a Lake *Handout*

Students learn about Lake Apopka's history while practicing for the FCAT.

Water Atlas Curriculum Lesson 12 – FCAT Supplement

### FCAT-Friendly Reading Questions

1. This article is written as though the author were actually interviewing Lake Apopka. Based on your reading of the article, describe the reasons you think the author expressed this information in a fictional format instead of using the more standard paragraph form. Which of the following statements from the article is an opinion?
  - a. "At one time I had 29 fish camps on my shoreline, but now I don't have any."
  - b. "They built a 5,000-acre marsh filtration system on my northwest corner."
  - c. "It's a wonderful place for recreation and watching wildlife."
  - d. "Once, they tried to get rid of the exotic water hyacinth plants that invaded me and poisoned a lot of other good plants in the process."

2. According to the article, which of the following is desirable in Lake Apopka?
  - a. Gizzard shad
  - b. Largemouth bass
  - c. Water hyacinth
  - d. Pesticide

3. The following statements are included in the article titled "An Interview with Lake Apopka."

**Lake Apopka** ... Farmers would flood their fields with my water for weed control, and when the water flowed back into me, it was full of fertilizer and pesticides. That stuff is really hard on wildlife, and the nitrogen and phosphorus make aquatic plants grow like crazy—including, unfortunately, exotic invasives and toxic algae. ...

**Interviewer:** Wow, that's sad. Those farmers should be ashamed.

**Lake Apopka:** I don't blame them, because they didn't realize what would happen and they were just trying to make a living. They probably believed that because I was so big I could just absorb all the pollutants, that they'd be diluted to harmless levels. Besides, there was pollution coming from other places, too.

Based on context clues in these statements, what is the meaning of the word "diluted"?

- a. Reduced in concentration
- b. Developed
- c. Enlarged
- d. Contaminated

Name:

Date:

## Interview a Lake *Handout*

*Students learn about Lake Apopka's history while practicing for the FCAT.*

*Water Atlas Curriculum Lesson 12 – FCAT Supplement*

### FCAT-Friendly Writing Prompts

1. Our world is filled with many amazing natural areas. Imagine that you can visit one natural area anywhere in the world. Write a story about the day of your visit.
2. Our world is filled with many amazing people. Imagine that you can interview anyone you choose. Write a story about this interview, including the questions you would ask and the answers you might get.
3. People often have differing opinions about the best use of natural resources. Imagine that you have received two offers to buy your undeveloped lakefront property: one from a buyer who will preserve the natural shoreline, and the other from a developer who will build a playground along the shore. Write to explain which person you would sell your property to and your reasons for making this choice.
4. People have differing opinions about the benefits of wildlife near their homes. Imagine that your family owns property in an area where the number of ducks is increasing rapidly. Write to explain to your neighborhood group why you think the increasing number of ducks is good OR bad for the community.

Name:

Date:

**Interview a Lake *Handout***

Students learn about Lake Apopka's history while practicing for the FCAT.

Water Atlas Curriculum Lesson 12 – FCAT Supplement

**FCAT-Friendly Math Questions**

<b>2010 Total Nitrogen in Lake Apopka</b>	
<b>When Data Was Collected</b>	<b>Total Nitrogen, mg/l</b>
Jan-10	3.36
Feb-10	3.47
Mar-10	4.88
Apr-10	3.11
May-10	3.44
Jun-10	2.86
Jul-10	2.64
Aug-10	3.05
Sep-10	2.80
Oct-10	2.93
Nov-10	3.08
Dec-10	3.85

1. According to the data in the table titled "2010 Total Nitrogen in Lake Apopka," the concentration of total nitrogen in Lake Apopka water was 2.80 milligrams per liter in September 2010. What was the average concentration of total nitrogen in Lake Apopka during the year 2010? Be sure to show your work and round your answer to the nearest tenth.

2. Write a sentence explaining the relationship between the average 2010 total nitrogen level and the total nitrogen level in January 2010.

Name:

Date:

## Interview a Lake *Handout*

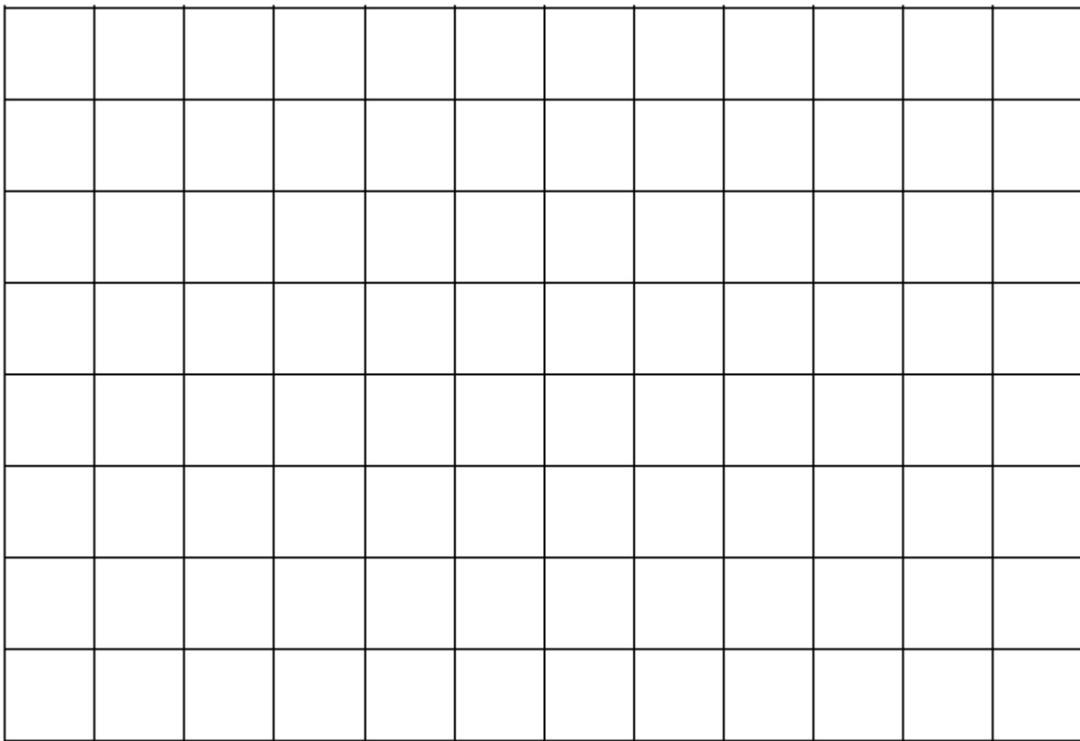
Students learn about Lake Apopka's history while practicing for the FCAT.

---

---

---

3. According to the table, the total nitrogen level in Lake Apopka changes throughout the year. Use the data from this table to create a graph showing the water level at each month during the year 2010. Be sure to label your axes, scale your graph appropriately, and title it.



4. During December 2000, the water level of Lake Apopka was 69.2 feet above mean sea level. In August 2005, the water level was measured at 78.3 feet above mean sea level. By what percentage did the water level increase?
- a. 2.2%
  - b. 6.5%
  - c. 13.2%
  - d. 37.4%

Name:

Date:

## Interview a Lake *Handout*

Students learn about Lake Apopka's history while practicing for the FCAT.

Water Atlas Curriculum Lesson 12 – FCAT Supplement

5. In 2004, scientists found 17 different plant species growing in Lake Apopka. They noted in their report that 23.5% of these plants were “exotic” or invaders from other lands. Which of the following numbers shows the number of exotic plant species found in Lake Apopka in 2004? Round your answer to the nearest whole number.
  - a. 3
  - b. 4
  - c. 6
  - d. 8
  
6. Lake Apopka covers 30,862 acres. In 2005, water managers removed 476,775 kilograms of gizzard shad from the lake. If the fish were spread evenly through the lake, how many kilograms of gizzard shad per acre is this?
  - a. 2.8 kg / acre
  - b. 9.4 kg / acre
  - c. 15.4 kg / acre
  - d. 20.6 kg / acre
  
7. If the average weight of a gizzard shad is 0.15 kg, about how many fish per acre were harvested?
  - a. 50
  - b. 100
  - c. 500
  - d. 750

Name:

Date: