



Crystal Springs Live!





Thank you for choosing Crystal Springs LIVE!

Crystal Springs Preserve and WaterVentures Florida's Learning Lab are committed to bringing quality environmental education programs to teachers and parents. Our programs are aligned with NGSSS and SNF standards to align with topics taught in classrooms. Each program has been created with the student in mind and conveys important environmental topics in a fun and engaging manner. Additionally, supplemental activities, vocabulary lists, pre/post tests and more are offered to provide an all-encompassing program for students in and out of the classroom.

For those of you unfamiliar with Crystal Springs or WaterVentures, we invite you to explore our websites. (www.crystalspringsfoundation.org and www.waterventures.us). Crystal Springs Preserve is a 530-acre living laboratory that is dedicated to bringing directed learning opportunities to visitors through immersion into the pristine habitat of the preserve. WaterVentures was created to extend this learning throughout the state of Florida. As a high-tech mobile learning lab, WaterVentures brings those same fun and engaging environmental programs to schools free of charge. Both are devoted to inspiring guests to be responsible environmental stewards of Florida's precious natural resources.

We hope you enjoy our virtual programs and please do not forget to check out the offerings of Crystal Springs Preserve and WaterVentures!

Happy learning!

Source to the Sea Pre/Post Test

- 1) What is conservation?
 - a. Protecting wildlife
 - b. Protecting resources
 - c. Recycling trash
 - d. All of the above

- 2) The Green Swamp is the headwaters for which rivers?
 - a. Hillsborough, St. Johns, Peace, Withlacoochee
 - b. Hillsborough, Peace, Withlacoochee, Ocklawaha
 - c. Hillsborough, Peace, Withlacoochee, Suwannee
 - d. None of the above

- 3) Why is the Green swamp important?
 - a. Its ability to store surface water
 - b. Its amazing ecosystem
 - c. It is the headwaters for 4 major rivers
 - d. All of the above

- 4) Rain water is important because it _____.
 - a. Provides water to the Green Swamp
 - b. It percolates down into the aquifer
 - c. Both A and B
 - d. None of the above

- 5) Runoff containing oil and gasoline is a concern as the Hillsborough river flows through civilization.
 - a. True
 - b. False

- 6) What are the 3 ways water discharges from the aquifer?
 - a. Cave boils, grass boils, rock boils
 - b. Cave boils, sand boils, limestone rock
 - c. Cave boils, sand boils, crevasse boils
 - d. Crevasse boils, sand boils, limestone rock

- 7) In times of drought, Crystal Springs is considered the headwaters for the Hillsborough River.
- a. True
 - b. False
- 8) What is the purpose of the bypass canal?
- a. Ensuring the health of the estuary ecosystems of Tampa Bay
 - b. Surface water storage system
 - c. Providing potable water
 - d. All of the above
- 9) The Hillsborough river provides social, economic, and environmental benefits to all.
- a. True
 - b. False
- 10) Mangroves are important because they _____.
- a. Stabilize Florida's coastline
 - b. Provide protection from storm surge
 - c. Both A and B
 - d. None of the above
- 11) Water is life. Our actions can determine our future.
- a. True
 - b. False

Bonus Question: (Will not be counted on pre/post test for CSF)

12) What does conservation mean to you?

Source to the Sea Pre/Post Test Answer Key

- 1) D
- 2) B
- 3) D
- 4) C
- 5) A
- 6) C
- 7) A
- 8) D
- 9) A
- 10) C
- 11) A

PRE/POST EXHIBIT DATA SUBMISSION FORM

Date of Program	
School name	
Teacher name	
Number of students taking the Pre-test and Number taking Post-test	
Pre-test average percentage *	
Post-test average percentage *	

*Scoring all tests, adding up all scores, and dividing by the number of students that took the test will obtain an average percentage.



Source to the Sea Vocabulary Words

Aquifer- Underground cave system full of fresh water.

Conservation- The act of protecting the earth's natural resources for current and future generations.

Diversity- Having a variety of different variables.

Magnitude- Used to measure the size of a spring system.

Preservation- Keeping something alive, intact, or free from damage.

Protection- Keeping something or someone safe.

Resources- Natural resources that exist without any interference by humans.

Restoration- Returning something to its former condition.

Stewardship- The act of taking care of something.

Swamp- A forested wetland.

Tape Grass- An aquatic plant that provides habitat for a variety of different animals.



Source to the Sea Standards

SC.4.L.17.4

SC.4.E.6.6

SC.5.E.7.2

SC.6.E.6.2

SC.7.E.6.6

Source to the Sea Supplemental Activities- Fill in the blank



Complete the Sentence

Use the words in the list below to complete the sentence

Name: _____

Created on TheTeachersCorner.net Fill-in-the-Blank Maker

1. Conservation is the _____ and _____ of our environment and wildlife.
2. The Green Swamp is the headwaters of the _____ River, _____ River, _____ River, and _____ River.
3. The Green Swamp is compromised if both _____ and _____ habitats.
4. Crystal Springs is a _____ magnitude spring discharging _____ million gallons of water into the Hillsborough River.
5. The water in the spring bubbles up through _____ boils, _____ boils, and _____ boils.
6. Limestone rock makes up the _____. It _____ the spring _____ that comes out of the ground.
7. Part of the Hillsborough River is diverted to a huge _____ water _____ system called The _____ Bay _____ Canal.
8. The Hillsborough River is the _____ of _____ water for the city of Tampa.
9. The Hillsborough River provides _____ and _____ benefits to all.
10. Sand bars need to be _____ because shore birds rely on them for _____ and feeding.

Ocklawaha drinking wetland Withlacoochee cleans surface preservation, protected nesting, cave resting, economic, 30 restoration water upland source second sand Tampa Hillsborough environmental Bypass storage social, crevasse protection, aquifer. Peace



Source to the Sea Supplemental Activities- fill in the blank answer sheet



Complete the Sentence

Name: _____

Use the words in the list below to complete the sentence

Created on TheTeachersCorner.net Fill-in-the-Blank Maker

1. Conservation is the protection, preservation, and restoration of our environment and wildlife.
2. The Green Swamp is the headwaters of the Hillsborough River, Withlacooche Peace River, e River, and Ocklawaha River.
3. The Green Swamp is compromised if both wetland and upland habitats.
4. Crystal Springs is a second magnitude spring discharging 30 million gallons of water into the Hillsborough River.
5. The water in the spring bubbles up through cave boils, sand boils, and crevasse boils.
6. Limestone rock makes up the aquifer. It cleans the spring water that comes out of the ground.
7. Part of the Hillsborough River is diverted to a huge surface water storage system called The Tampa Bay Bypass Canal.
8. The Hillsborough River is the source of drinking water for the city of Tampa.
9. The Hillsborough River provides social, economic, and environmental benefits to all.
10. Sand bars need to be protected because shore birds rely on them for nesting, resting, and feeding.

Ocklawaha drinking wetland Withlacoochee cleans surface preservation, protected nesting, cave resting, economic, 30 restoration water upland source second sand Tampa Hillsborough environmental Bypass storage social, crevasse protection, aquifer. Peace





Source to the Sea Discussion Questions

- 1) The Bypass Canal was built to help meet the needs of potable water for the city of Tampa and prevent flooding of near by neighborhoods and businesses along the Hillsborough River. This conservation project has been successful. What do you think could have happened or would have happened if this project did not take place?
- 2) Can you think of other environmental areas/issues where humans have intervened successfully or where they have not been successful (e.g. altering of Everglades)?.



Source to the Sea Supplemental Websites/Videos

Southwest Florida Water Management District, 2020

'Hillsborough River Watershed Excursion'

<https://www4.swfwmd.state.fl.us/hill/watershed>

Sunshine State of Mind, 2018

'Exploring Florida- Hillsborough River State Park'

<https://www.youtube.com/watch?v=1Fxxqi-vUhA>

QuietHut, 2018

'Energy Conservation for Kids'

<https://quiethut.com/energy-conservation-for-kids/>

Water Use It Wisely, 2020

'100 + Ways to Conserve Water'

<https://wateruseitwisely.com/tips/category/kids/>

USGS, 2020

'Water Science School'

<https://www.usgs.gov/special-topic/water-science-school>