

Temperatures & Dissolved Oxygen *Handout*

Students interpret graphs and draw conclusions.

RESEARCH DATA FOR CAMPBELL PARK ELEMENTARY COMPS STATION

1. Go to www.pinellas.wateratlas.org.
2. Go to the bottom of the page where it says New Near Real Time Data Mapping Application.
3. Zoom in to the downtown St. Petersburg area and select the station for Campbell Park-CPK.
4. At the top where Data Source is provided click the link for COMPS. At the bottom of the metadata box, you have a link for the Contact URL. Click this link to open a new window of the USF COMPS website.
5. Click on the General Information link on the left.
 - a. Why was COMPS created? _____

 - c. What does COMPS provide? _____

6. Zoom in on the map to find St. Petersburg. Select the station for Campbell Park.
7. The parameters recorded by this station are displayed.
 - a. What is the date and time of the last measurement? _____
 - b. Convert the UTC time shown to your local time (see the latest observations section).

 - c. What parameters does this COMPS station record? _____

ANALYSIS OF THE GRAPHS:

1. Under the latest observations data, click on the 1-day link. Look at the 24 hour graphs for air temperature and water temperature. Write a paragraph explaining the relationship between time of day, water temperatures, and air temperatures. Include why one would rise or fall faster than the other.

2. What is dissolved oxygen and where does it come from? (If you need a resource open a new tab for www.hillsborough.wateratlas.usf.edu select Dissolved Oxygen from the drop down menu in the topics section) _____

3. Are changes in temperature and dissolved oxygen physical or chemical changes? What other physical or chemical changes might scientists monitor water for? _____

4. Close the vocabulary tab and return to the COMPS Campbell Park Elementary site.

Name:

Date:



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ANALYSIS OF THE GRAPHS continued:

5. Analyze the Dissolved Oxygen graph as compared to the Water Temperature graph for the past 24 hours. Describe any relationships you see. _____

6. Why do you think these relationships exist? _____

7. Do you think other physical/chemical parameters of water show similar relationships with temperature? If so, explain these relationships and why you predict they occur.

8. What do the results of this investigation between the relationships of temperature and dissolved oxygen mean to organisms that live in the water? _____

9. Why do we need all this equipment that measures and records real-time-data? Why is it important?

Name:

Date: