

# Seminole County Water Atlas Learning Kit

## Explore Website and Research *Handout*

Part 4 of 4 in the "Exploring the Water Atlas" Series

Water Atlas Curriculum Lesson #

**INSTRUCTIONS:** Go to the website: [www.Seminole.WaterAtlas.org](http://www.Seminole.WaterAtlas.org)

Now we'll go to Lake Jesup, at the mouth of Soldiers Creek. Many other creeks and canals flow into this 13 mile-long lake. Let's see how the water quality is.

1. Go to Explore > Water Resources > Water Resource Search. For Water Resource Name, type "Jesup". For "Filter by Topic:" choose "Overall Trophic State Index". For "Filter Resource Type," choose "Lake". What is the latest overall Trophic State Index? \_\_\_\_\_
2. What was the best value, and when did it happen? \_\_\_\_\_
3. Click on the 10-year graph of Overall Trophic State Index and print the graph. Click on "Learn More about the Trophic State Index." Read the information. Draw a line across the printed graph to separate values considered Good, Fair, and Poor. Use highlighters to shade those regions in the graph. Add a legend to show what each color means.
4. At the bottom and on the back of the printed graph, write a paragraph about the state of Lake Jesup during the last ten years. Give details including the category and expectations for our waterbodies.
5. How does dissolved oxygen fit into the picture? Close the window with the Trophic State Index graph and scroll down to the information about Dissolved Oxygen (DO).
  - a. There is a LOT of information on Lake Jesup. After all, it's 13 miles long, and has been studied for a long time! What is the earliest date mentioned in the list of sites? \_\_\_\_\_
  - b. Remembering what you learned about DO, have there been times when the level of dissolved oxygen might have led to stress or even death for some aquatic organisms (living things in the water)? When? \_\_\_\_\_ Have there been times of abundant DO? When? \_\_\_\_\_
6. Fun Activity! Choose the Habitats/Ecology tab on the Lake Jesup page. Find the section on Macroinvertebrate Data. Click the link to "Learn More About Macroinvertebrate Data." What is a macroinvertebrate and why are they important? (Macro means you can see it without a microscope.)

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Name:

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7. Select one or more of the reports and highlight the name of a macroinvertebrate. Copy and then open Google (Search engine). Paste the name of the organism in the search box and try to identify it. Easy!
  8. With the name of the organism pasted in the search, switch from the Web tab to the Images tab on Google and see if you can find a picture. (Open History on the browser toolbar to toggle back and forth between the Atlas and Google, or open a new window.)
  9. Research two or three. What kinds of macroinvertebrates are there in Lake Jesup? (Use common names with the scientific names.)
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10. For extra credit, make a picture identification page of some of the macroinvertebrates found in Lake Jesup. Give proper credit for the Internet information and pictures.

Name:

Date:

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