

Seminole County Water Atlas Learning Kit

Reading Statistical Tables *Teacher's Guide*

Students will compile and utilize a statistical table using website data.

Water Atlas Curriculum Lesson 35

Grade Level: Middle

Subject Area/Course: Language Arts, Science, Math

Performance Objectives:

References are to the Next Generation Sunshine State Standards (2007).

Language Arts

LA.6.2.1.5 Develop an interpretation of a selection around several clear ideas, premises, or images, and justify the interpretation through sustained use of examples and contextual evidence.

Math

MA.6.S.6.1 Determine the measures of central tendency (mean, median, and mode) and variability (range) for a given set of data.

Science

SC.6.N.1.4 Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.

Academic Outcomes/Lesson Objectives:

- Students will be able to complete data table using the information on the WaterAtlas.
- Students will be able to examine data and locate information.
- Students will be able answer questions relating to the data on the table.

Background Information:

Statistical tables are used to show trends and patterns. They organize and categorize information under specific headings. Horizontal lines are called rows and vertical lines of information are called columns. To read a statistical table, look at the title, and then look at the headings. Using the categories at the top and left side of the table, read across a row and down a column to locate specific information

Materials Needed:

Access to www.Seminole.WaterAtlas.org, Reading Statistical Tables handout, paper for answer

Safety: N/A

Vocabulary:

categorize

To put something into a group that has particular characteristics it shares.



Seminole County Water Atlas Learning Kit
Reading Statistical Tables *Teacher's Guide*

Students will compile and utilize a statistical table using website data.

Water Atlas Curriculum Lesson 35

statistical

Related to the collection, organization, interpretation and presentation of data.

trophic state index

A number used to indicate the level of plant nutrients in a water body.

oligotrophic

Relatively low in nutrients.

mesotrophic

Having a moderate level of nutrients.

eutrophic

Having a high level of nutrients.

hypereutrophic

Having an extremely high level of nutrients.

Author: Polly H. Wilson

Answer Key: Please see next page.

Seminole County Water Atlas Learning Kit

Reading Statistical Tables *Teacher's Guide*

Students will compile and utilize a statistical table using website data.

Water Atlas Curriculum Lesson 35

2. The values below are for July 2004. The last two columns are subject to change.

	Lakes	Surface Area in Acres	Mean Depth in Feet	Maximum Depth in Feet	Trophic State Index	Impaired or OK?
1	Ada	51	8	16	48.36	OK
2	Adelaide	21	7	12	59.06	OK
3	Alma	21	Not Available	Not Available	87.99	Impaired
4	Asher	5	2	6	54.37	OK
5	Bear Gully	139	5	20	43.11	Impaired
6	Bear Lake	310	12	37	35.98	OK
7	Lake Brantley	285	12	28	37.07	OK
8	Buck Lake	159	4	15	46.71	OK
9	Lake Kathryn	78	5	16	73.24	OK
10	Greenwood Lake	34	6	18	68.01	OK
11	Long Lake	69	8	17	47.82	OK
12	Lake Mills	231	10	24	26.3	OK
13	Mullet Lake	189	4	6	69.95	OK
14	Lake Orienta	142	6	24	53.79	Impaired
15	Secret Lake	5	9	21	47.73	OK

- Lake Asher has the least mean depth at 2 feet. Bear Lake and Lake Brantley both have the greatest mean depth at 12 feet. Mean depth is an average of many depth readings throughout the lake.
- According to the website, holes, or deep spots are productive for fishing. To find the deepest hole in Bear Gully Lake, you would go to the center of the east side of the lake near the shore (at the creek).
- The answer below is based on the table values above. Student answers will depend on current conditions.

Good		Fair	Poor
Oligotrophic 0-49	Mesotrophic 50-60	Eutrophic 61-69	Hypereutrophic 70-100
/ Imp / / / / / / /	///	/ Imp	Imp / /

6. To determine water quality, the Trophic State Index (nutrient load) over a period of time is considered as well as dissolved oxygen, bacteria, plants and animals in the water. If the water can't support fishing and swimming, it is impaired. Water quality depends on many things including Trophic States.
7. The mode is the section with the most lakes in it. For the trophic table, the mode is Oligotrophic.