

Reading Statistical Tables *Teacher's Guide*

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

GRADE LEVEL: Middle

SUBJECT AREA/COURSE: Reading, Science, Math

SUNSHINE STATE STANDARDS:

- The student locates, organizes, and interprets written information for a variety of purposes, including classroom research, collaborative decision making, and performing a school or real-world task (LA a.2.3.5)
- understands and applies the concepts of range and central tendency (mean, median, and mode). (MA.e.1.3.2)
- knows that accurate record keeping, openness, and replication are essential to maintaining an investigator's credibility with other scientists and society.(SC.h.1.3.4.)

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, 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 answers

SAFETY: N/A

VOCABULARY: categorize, statistical, trophic state index, oligotrophic, mesotrophic, eutrophic, hyperotrophic

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KEY: please see next page

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Note that 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	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	26.30	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

3. b. Rank by size in descending order: 6, 7, 12, 13, 8, 14, 5, 9, 11, 10, 1, 2 and 3 same area, 4 and 15 same area.
3. c. 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.
4. 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).

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5. The table below is for the information on the previous page. Student answers will depend on current conditions.

<i>Good</i>		<i>Fair</i>	<i>Poor</i>
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.

8. The mode is the section with the most lakes in it. For the trophic table, the mode is Oligotrophic.