Studying Elevation *Teacher's Guide*

GRADE LEVEL: 9th- 12th

SUBJECT AREA/COURSE: Science

ACADEMIC OUTCOMES/LESSON OBJECTIVES:
- Students will determine what sensors measure.
- Students will discover where in Tampa Bay sensors are located.
- Students will use real-time data to make observations about habitats in Tampa Bay.
- Students will interpret graphs and draw conclusions.

TEACHER INFORMATION:
Preview the student activity and become familiar with the Real-Time Data Mapping Application tool. Preview the Review vocabulary terms on the Hillsborough County Water Atlas Website
http://www.hillsborough.wateratlas.usf.edu/help/glossary.asp

MATERIALS NEEDED: Internet access with www.Pinellas.WaterAtlas.org bookmarked, copies of the student handout

TEACHER WEBSITE RESOURCES:
- Sunshine State Standards can be found at http://www.fldoe.org/bii/curriculum/sss/
- Information about FCAT can be found at http://fcat.fldoe.org/
- FCAT rubric information can be found at http://fcat.fldoe.org/rubrcpag.asp
- More FCAT-Friendly Activities, visit http://pelotes.jea.com

SUNSHINE STATE STANDARDS

SCIENCE

9th to 12th Grades:

SC.912.E.5.2	Identify patterns in the organization and distribution of matter in the universe and the forces that determine them. *Cognitive Complexity/Depth of Knowledge Rating: Moderate*
SC.912.L.17.2	Explain the general distribution of life in aquatic systems as a function of chemistry, geography, light, depth, salinity, and temperature. *Cognitive Complexity/Depth of Knowledge Rating: High*
SC.912.L.17.3	Discuss how various oceanic and freshwater processes, such as currents, tides, and waves, affect the abundance of aquatic organisms. *Cognitive Complexity/Depth of Knowledge Rating: Moderate*

Name:

Date:

SUNSHINE STATE STANDARDS continued

SCIENCE

9th to 12th Grades:

SC.912.N.1.1	Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/space science, and do the following: *Cognitive Complexity/Depth of Knowledge Rating: High*
	1. pose questions about the natural world,
	2. conduct systematic observations,
	3. examine books and other sources of information to see what is already known,
	4. review what is known in light of empirical evidence,
	5. plan investigations,
	6. use tools to gather, analyze, and interpret data (this includes the use of measurement in metric and other systems, and also the generation and interpretation of graphical representations of data, including data tables and graphs),
	7. pose answers, explanations, or descriptions of events,
	8. generate explanations that explicate or describe natural phenomena (inferences),
	9. use appropriate evidence and reasoning to justify these explanations to others,
	10. communicate results of scientific investigations, and
	11. evaluate the merits of the explanations produced by others.
SC.912.N.1.3	Recognize that the strength or usefulness of a scientific claim is evaluated through scientific argumentation, which depends on critical and logical thinking, and the active consideration of alternative scientific explanations to explain the data presented. *Cognitive Complexity/Depth of Knowledge Rating: Low*
SC.912.N.1.7	Recognize the role of creativity in constructing scientific questions, methods and explanations. *Cognitive Complexity/Depth of Knowledge Rating: Low*