GRADE LEVEL: 6th - 8th

SUBJECT AREA/COURSE: Science/Math

ACADEMIC OUTCOMES/LESSON OBJECTIVES:
- Students will access, learn about and use real-time data related to precipitation.
- Students will discover where in Brooker Creek Preserve sensors are located.
- Students will collect and graph precipitation data.
- Students will interpret graphs and draw conclusions.

TEACHER INFORMATION:
This teacher's guide is to be used for the following student handouts: Interpreting Precipitation at Keystone Road, Precipitation at Keystone Road Table & Graph, Precipitation at Keystone Road advanced student. The advanced student version is a cumulative lesson from the 2 previous listed student handouts. **This lesson plan should be done during the rainy season, but more importantly when it has rained in the last 24 hours.** Students will be observing, analyzing, and discussing precipitation at the northern end of Brooker Creek. Prior to this activity, teachers should introduce students to Brooker Creek Preserve. This can be done by a fieldtrip to the Brooker Creek Environmental Education Center or by visiting the Brooker Creek website http://www.brookercreek.org/home1.htm and discussing the preserve's ecology. The station at Keystone Road is located in the headwaters of Brooker Creek in Pinellas County. Preview the student activity. 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 handout, Pencils, and Rulers.

VOCABULARY: Precipitation, Rainfall

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-

6th Grade:

SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions. *Cognitive Complexity/Depth of Knowledge Rating:* High

7th Grade:

SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions. *Cognitive Complexity/Depth of Knowledge Rating:* High

SUNSHINE STATE STANDARDS:

SCIENCE continued-

7th Grade:

SC.7.N.3.2	Identify the benefits and limitations of the use of scientific models. *Cognitive Complexity/Depth of Knowledge Rating*: Moderate

8th Grade:

SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions. *Cognitive Complexity/Depth of Knowledge Rating:* High
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence. *Cognitive Complexity/Depth of Knowledge Rating*: Moderate

MATH-

6th Grade:

MA.6.A.3.6	Construct and analyze tables, graphs and equations to describe linear functions and other simple relations using both common language and algebraic notation. *Cognitive Complexity/Depth of Knowledge Rating:* High

8th Grade:

MA.8.A.1.1	Create and interpret tables, graphs, and models to represent, analyze, and solve problems related to linear equations, including analysis of domain, range and the difference between discrete and continuous data. *Cognitive Complexity/Depth of Knowledge Rating:* High

Name: Date: