

## **Science Professional Development**

### **Campus/District Offerings 2010 - 2011**

**Are You Catching Up or Leading the Way? Preparing Science Students for the 21st Century *NEW***  
By attending this opportunity, participants will leave with an understanding of how they can build a bridge between traditional content and the competencies students will need in the future. Teachers will walk away with ideas to assist them in preparing students for college, career, and citizenship.

**Doing What Works! Best Practices in the Science Classroom *NEW***  
This staff development session is designed to help teachers employ best practices as determined by research on what is proven to increase student achievement in science. Areas of focus will include an introduction to the following: the BCSC 5E instructional model, Robert Marzano's academic vocabulary strategies, as well as content area reading.

**Do You Know What They Know? Formative Assessment Strategies in Science**  
Educators will develop a common understanding of formative assessment and how it is implemented in the classroom. Focus will be placed on effectively using formative assessment to measure what students think and know throughout the instructional period, not just at the end of a unit of study. Teachers will be able to adjust instruction based on this important feedback from students.

**Ignite Math and Science Instruction (K-5)**  
In order to create a more student-centered classroom, teachers need to be equipped with the knowledge and skills to teach math and science in a more meaningful way. This training will provide teachers with instructional strategies that will help assist them in integrating their math and science instruction.

**Journaling & Interactive Notetaking in Science**  
According to Robert Marzano, some instructional strategies are more effective at increasing retention rates among students. This professional development opportunity will provide participants with tools to set up interactive journals and incorporate note taking and summarization strategies.

**Journaling: The Next Chapter *NEW***  
This workshop is designed for teachers who have previously attended and implemented Journaling & Interactive Notetaking in Science. Participants will be exposed to new examples of lessons in addition to sharing and discussing authentic activities from their own classrooms. Attendees will need to bring classroom journals to share with the group.

**Prerequisite: Journaling & Interactive Notetaking in Science.**

**Meeting Students Where They Are: Differentiation in Practice**  
Teachers will learn how to implement and manage small group instruction. Emphasis will be placed on comparing and contrasting cooperative learning and differentiated or small group learning and assessing students' knowledge for proper group placement. Participants will learn how to set up instructional activities that will allow them to pull a small group for remediation while allowing other selected students to take part in reinforcement and enrichment activities.

**Navigating the Science ELPS *NEW***  
Explore ways to increase achievement for English Language Learners using the English Language Proficiency Standards (ELPS). The ELPS require specific focus on developing academic language in the content areas through reading, writing, speaking, and listening in grades K-12. In this session, participants

will examine the ELPS and will practice writing language objectives using the four domains. Resources contain specific strategies that will enable teachers to incorporate the ELPS into their classrooms.

**Science TEKS Overview for Grades K-12 *NEW***

Examine the new 2010 science TEKS to improve overall science instruction. Explore models of vertical alignment that strengthen participants' knowledge of science concepts and processes, leading to student success on statewide assessments and post-secondary readiness.

**Teaching Science Through Literature (K-5) *NEW***

Students learn best when the subject matter is meaningful and useful. Literature helps bring science to life. The lessons in this professional development will follow the 5E instructional model developed by the Biological Sciences Curriculum Study (BSCS) and cover a variety of science content. Participants will walk away from this session with ideas on how to maximize their instructional time without sacrificing their content.