

## **ELEMENTARY SCIENCE OFFERINGS – *Available Onsite***

### **Building Academic Vocabulary in Science**

According to Marzano, students arrive at school with gaps in their background knowledge thus affecting vocabulary development. This training reviews the research and analyzes strategies to build vocabulary lists and use effective instructional strategies.

### **Data Disaggregation after TAKS**

This module is designed to provide teachers an opportunity to investigate and study TEKS with classroom ready lessons that incorporate research-based instructional strategies using Marzano's information. Teachers will focus on understanding the connection of the TEKS and the verbs found in the Student Expectations while reviewing their own TAKS data from released tests and SE's. The goal of this training is to separate fact from fiction regarding test results per campus and to develop an instructional plan.

### **Engineering is Elementary- *NEW TITLE***

The *Engineering is Elementary* workshop is designed to help elementary school educators enhance their understanding of engineering concepts and pedagogy. EiE is a research-based, standards-based, and classroom-tested curriculum that integrates engineering and technology concepts and skills with elementary science topics. All core content areas are addressed within each unit (math, science, language arts, social studies). TEKS alignment and CScope best fit will be provided. Cost: \$50 for unit materials

### **Formative Assessment in Elementary Science – *NEW TITLE***

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 in the Elementary Classroom- *NEW TITLE***

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 to integrate 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 notetaking and summarization strategies.

### **Laboratory Safety Training**

This staff development session provides rigorous training in the laws, rules and regulations for safety procedures in the classroom, laboratory and field investigations. Participants will study the Texas Safety Standards booklet and participate in activities that encourage the importance of protective eyewear and safe chemical storage.

### **Mentoring New Science Teachers on Your Campus – *NEW TITLE***

This PDA was developed under a grant from the National Science Foundation. Our guide, a NSTA Publication, Making Science Mentors: A 10 Session Guide for Middle Grades will be used and provided to each participant. The principles of this guide's procedures and materials were field-tested with 50 mentors and new teachers in a variety of middle schools. Making Science Mentors provides you with everything you need to set up and run a comprehensive program.

### **Modifying Student Assignments & Assessments in Science – *NEW TITLE***

Texas Assessment of Knowledge and Skills, modified (TAKS M) provides guidance in concrete methods of modifying student work in the science classroom. This staff development examines TAKS M modifications and transfers that knowledge to daily modifications as noted on a student's IEP. Teachers are requested to bring their own teacher-created assignments and assessments to be modified.

### **Reading to Learn in Science**

This staff development session is designed to help teachers employ best practices as determined by research on reading and writing through science content. Suggestions will be presented on how to help students confront the challenges associated with science text.

### **Science and the English Language Learner**

The primary purpose of the ELL Initiative is to develop resources for professional development targeted at improving science instruction for English Language Learners, especially those at the secondary level. Classroom practices that contribute to successful science instruction for English Language Learners will be explored and misconceptions and roadblocks discussed.

### **Small Group Instruction in Elementary Science – *NEW TITLE***

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.

### **5E Model Of Instruction in Science**

Explore what the 5E instructional model is and how each stage supports student learning. In fact the research shows that the 5E model is one of the best structures to support instructional strategies that positively impact a student's science proficiency. In the process participants will learn how to adjust their own lessons to correspond to the 5E instructional model.

## **SECONDARY SCIENCE OFFERINGS – Available Onsite**

### **Building Academic Vocabulary in Science**

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### **Data Disaggregation after TAKS**

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### **Formative Assessment in Science – **NEW TITLE****

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.

### **HAZCOM Training Laboratory Safety Training**

This staff development session provides rigorous training in the laws, rules and regulations for safety procedures in the classroom, laboratory and field investigations. Participants will study the Texas Safety Standards booklet and participate in activities that encourage the importance of protective eyewear and safe chemical storage.

### **Integrative Science & Mathematics Instruction**

Integration of the math and science curriculum is key to showing students relationships and connecting concepts that encourage student success. Teachers will review academic vocabulary and compare science and math TEKS to build lessons that will incorporate research based strategies to enhance any math and science curriculum.

### **Journaling & Interactive Notetaking in Science**

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tools to set up interactive journals and incorporate notetaking and summarization strategies.

### **Manipulatives in the High School Science Classroom**

Bridging from concrete to abstract is essential for students who struggle with science. Activities utilizing manipulative materials provide alternative methods for teaching concepts in high school science classes, and provide the bridge to abstract concepts. Participants will have an opportunity to work with other teachers to build a “library” of TAKS manipulatives.

### **Mentoring New Science Teachers on Your Campus – *NEW TITLE***

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### **Science Through Inquiry (GT Credit available)**

Experience the benefits of teaching using the 5-E model for inquiry. Activities will effectively demonstrate the steps for guiding students through inquiry at the middle and high school level. Examples for each step of the inquiry cycle will be given and teachers will write their own lesson based on the 5-E model for inquiry.

