What is Science?

- Science is a system of acquiring knowledge. This system uses observation and experimentation to describe and explain natural phenomena.
Scientific Inquiry

- Full Inquiry involves asking a simple question, completing an investigation, answering the question, and presenting the results to others.
Kinds of Inquiry

- Structured Inquiry
- Guided Inquiry
- Open Inquiry
The 5 E Science Lesson Model

1. Engage
2. Explore
3. Explain
4. Expand/Elaborate
5. Evaluate
The Study of Science
Includes:

- Life Science
- Physical Science
- Earth and Space Science
Reading About Science Topics

- Expository Books
- Expository Text Features
- Technical Vocabulary
Graphic Organizers

• To be used with expository text

• To be used to recall information, to retrieve information, to revisit information, and to review information
Technical Vocabulary

• Use graphic organizers
• Use D. Zike foldables
• Use Pre-Teaching Vocabulary lessons
• Use word walls, dictionaries, and individual picture glossaries
Writing About Science

- Use a Science Notebook
- Use specific scientific vocabulary when labeling the scientific drawings
- Form predictions and record confirmations of thinking
- Record data
Science and English Language Learners

- Use of cognates to support vocabulary development
- Incorporate role playing to create meaning of text
- Cooperative learning/cooperative dialogue
Vocabulary Instruction

• Identifying Tier I, 2 and 3 words
• Use Taking Inventory strategy
• Use STAR Model
• Use Pre-teaching Vocabulary Lesson
Marzano’s Vocabulary Approach

1. Provide a description, explanation, or example of the new term (along with a nonlinguistic representation)
2. Ask students to restate the description, explanation, or example of the new term in their own words
3. Ask students to construct a picture, symbol, or graphic representing the term or phrase
4. Engage students in activities that help them add to their knowledge of the terms in their notebooks.

5. Ask students to discuss the terms with one another.

6. Involve students in games that allow them to play with the terms.
Out with the old
In with the New

- Comparing the Science TEKs with the NEW Science TEKS
- Implications for the classroom
Discovering Wonder

- Science helps answer questions.
- Learning science helps you come up with new questions.