This week's presentation shared great strategies and resources for embedding literacy into the science curriculum. It began with sharing our views of a successful science classroom. This room would be a place where students are actively involved with discovering and learning about the world around them. It is a place that fosters creative thinking, questioning, communication, problem-solving, and collaboration. There would be interactive stations where students could share their wonderings and explore answers.

When teaching science, the most challenging task is the collection of data. Organizing and generating knowledge from data are taught throughout the grades. Using data to evaluate students' is a constant practice. However, what type of data do we ask our students to collect and from where is it gathered. An important goal this year is to identify data that students can pull together and use as a teaching tool.

In class 4G the students consider themselves Makers and have been introduced to Makerspace challenges. Each week they become more familiar with the design process, work collaboratively, and persevere through many iterations before reaching success. The students always share their results and accept advice and criticism graciously. At the conclusion of each challenge, they use rubrics to evaluate their final product, and their participation as a team member. This experience has been a successful component of their science classroom.

Fourth-grade instructors are required to teach ELA for ninety minutes, mathematics for seventy-five minutes, recess and lunch for 60 minutes, and provide the students with forty-five minutes of art, library, or physical education. If there are no interruptions during the school day, that leaves twenty minutes for walking to other classes, and fifty minutes left to teach science and social studies. In order to successfully cover the fourth-grade curriculum, content areas must be bridged and connected to literacy.

The 3D book Breathless by Camilla Calamandrei was the perfect venue for linking science to literacy. The first skill that came to mind was problems and solutions. As the climbers began their ascent, dangerous situations occurred. They had to think quickly and find solutions or the result could be life-threatening. The book contained an electrifying plot. The rising action brought the reader to the high point then slowly progressed to the resolution. Regretfully, we could not view the 3D version of the story. Nevertheless, it is copied for tomorrow's lesson to teach problem and solution.

During our writing class, the students in use graphic organizers to plan their ideas. This skill is modeled using a frame. This organizer asks the students to identify their main idea and topic sentences, then requires the writer to list supporting details. The teacher completes the graphic organizer and shows the class how to begin each paragraph. This guided practice helps the students understand how to organize information and structure their essay. Eventually, the class independently use the frame to develop their writing assignments. The writing frame was similar to the ConStruct Strategy shared in this session.

Finally, how is the graphic organizer on page 22 and the PreP: The Potential Purpose used in the Classroom?

References:

http://www.roxannegmiller.com/images/R.G.%20Miller%20NSTA%202006%20presentation.pdf

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