

Primary School Science

By Jo-An Vargo and the Primary School Teachers

In late January 2010, the congressionally chartered National Research Council began its work to devise a new “conceptual framework” to guide science education in the future. The organizers hope that it will ultimately reshape the way teachers educate our youth by focusing instruction on a smaller key set of critical concepts. They determined that students also need a deeper conceptual understanding of science – one that relies on sound critical thinking.

When I read this news recently, it struck me that it will be interesting to compare the Council’s product with the curriculum and learning outcomes that the Primary School teachers have worked on throughout this year. Each age/grade level entered the science explorations, lessons, and experiments it teaches on a learning calendar. These were categorized under the four basic science strands of learning: earth, physical, life, and general. We also included the types of science tools that were used.

We wanted to analyze the balance between these science strands throughout the division. As we examined the results, we recognized that our next step was to develop a set of critical concepts (we call them learning outcomes) for each level. The results vary according to the age of the students. As you might expect, preschool three-year-olds’ experience science as a natural and spontaneous process that takes advantage of their natural curiosity. Their science explorations lay the foundation for a deeper understanding of concepts as they are taught in subsequent grades.

By the time our students reach third grade, they are following the scientific method when experimenting and making increasingly detailed oral and written observations. Whether they are studying weather, water, nature, or Oklahoma resources and landforms, students are being asked to think critically and scientifically.

We are looking forward to the future and will continue to envision ways to enhance our learning experience for the students. Opportunities abound, and we hope to share new science curricular initiatives as we develop them next year. Be on the lookout when you read next year’s lesson plans and monthly newsletters.