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Middle School Science

Science is about more than learning facts and concepts. Sure, these things are an important part of science, but I do not believe that they are enough. Teachers not only provide students with content knowledge, they also provide them with the skills necessary to develop questions. They then take that one step further to promote and develop methods and scientific processes necessary to investigate the answers to those questions. Hands-on and "minds-on" science engages students and not only promotes learning but fosters the wish for students to learn more about science, and perhaps even find a passion within the field. I believe that children learn best by "doing." Teachers must provide children with an opportunity to explore their own interests and passions, as well as building upon the knowledge they have already gained and previous experiences they have had.

In order to involve children in "doing" science, inquiry-based lessons and activities are a must. Although science instruction may not begin in this manner, teachers should guide students to this stage along a continuum. We, as teachers, must be prepared to hand the reins over to students and encourage them to take responsibility in their own learning. This does not mean we have to completely give up control; teachers are needed, even in inquiry-based instruction, as guides and to make sure that the needs of the classroom are met. It does, however, promote critical thinking of students, making connections with other areas of science, life and previous experiences of the children, and most importantly fosters a curiosity and a will to learn.

I also believe whole-heartedly in the richness of an integrated curriculum. I believe that it is important to connect science with faith and other areas of instruction, both in and out of the classroom. Making these connections with other subjects and student experiences will make the material easier to relate to for the students and will also enrich their learning and make it more memorable for them. This integration may also enhance my ability to reach multiple learning styles and understand the needs of each individual student. Authentic assessment also makes this possible. The ongoing process of assessment is necessary to make sure that each student is profiting from the lessons and to dispel any misconceptions as they arise.

The most important aspect of teaching science is having a will to learn for myself. Teachers never quit learning. This is an important message to bestow on children. Our own will to learn, along with the students, will not only model the learning process for them, but also help them realize our own passions as teachers. Learning is important to us and as students understand this, it will promote their own will to learn and realize that learning can, in fact, be enjoyable.